GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: April 27, 2004, 08:54:46 ; Search time 55 Seconds
(without alignments)
30.823 Million cell updates/sec

Title: US-09-847-940C-6
Perfect score: 40
Sequence: 1 ADWSWA 6

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

regular search; saved 35 alignments

Database : A_Geneseq_29Jan04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	40	100.0	6	5	AAM48538	Aam48538 Anti-infl
2	40	100.0	6	5	AAM48570	Aam48570 Anti-infl
3	40	100.0	6	6	ADA61814	Ada61814 NFkB esse
4	40	100.0	6	6	ADA61846	Ada61846 NFkB esse
5	40	100.0	7	5	AAM48574	Aam48574 Anti-infl
6	40	100.0	7	6	ADA61850	Ada61850 NFkB esse
7	40	100.0	8	5	AAM48575	Aam48575 Anti-infl
8	40	100.0	8	5	AAM48567	Aam48567 Anti-infl
9	40	100.0	8	6	ADA61851	Ada61851 NFkB esse
10	40	100.0	8	6	ADA61843	Ada61843 NFkB esse
11	40	100.0	9	5	AAM48573	Aam48573 Anti-infl
12	40	100.0	9	5	AAM48566	Aam48566 Anti-infl
13	40	100.0	9	5	AAM48569	Aam48569 Anti-infl
14	40	100.0	9	5	AAM48572	Aam48572 Anti-infl
15	40	100.0	9	6	ADA61848	Ada61848 NFkB esse
16	40	100.0	9	6	ADA61841	Ada61841 NFkB esse
17	40	100.0	9	6	ADA61849	Ada61849 NFkB esse
18	40	100.0	9	6	ADA61845	Ada61845 NFkB esse
19	40	100.0	9	6	ADA61842	Ada61842 NFkB esse
20	40	100.0	10	5	AAM48568	Aam48568 Anti-infl
21	40	100.0	10	5	AAM48571	Aam48571 Anti-infl
22	40	100.0	10	6	ADA61844	Ada61844 NFkB esse
23	40	100.0	10	6	ADA61847	Ada61847 NFkB esse
24	40	100.0	11	5	AAM48565	Aam48565 Anti-infl
25	40	100.0	11	6	ADA61840	Ada61840 NFkB esse
26	37	92.5	33	4	AAU21305	Aau21305 Human nov
27	37	92.5	103	2	AAY06332	Aay06332 Gliocladi
28	37	92.5	236	2	AAY06363	Aay06363 Gliocladi
29	37	92.5	236	3	AAY84341	Aay84341 Amino aci
30	37	92.5	236	3	AAB14876	Aab14876 Gliocladi
31	37	92.5	236	5	AAU77584	Aau77584 G. roseum
32	37	92.5	236	5	AAU77428	Aau77428 Gliocladi
33	37	92.5	274	5	ABP65718	Abp65718 Bifidobac
34	37	92.5	597	4	ABB62635	Abb62635 Drosophil
35	37	92.5	885	4	AAU33594	Aau33594 Pseudomon
36	37	92.5	885	6	ABU15648	Abu15648 Protein e
37	36	90.0	6	5	ABB08727	Abb08727 Mutated I
38	36	90.0	6	5	ABB08728	Abb08728 Mutated I
39	36	90.0	6	5	AAM48537	Aam48537 Anti-infl
40	36	90.0	6	5	AAM48548	Aam48548 Anti-infl
41	36	90.0	6	5	AAM48559	Aam48559 Anti-infl
42	36	90.0	6	5	AAM48509	Aam48509 NBD mutan
43	36	90.0	6	5	AAM48510	Aam48510 NBD.mutan
44	36	90.0	6	5	AAM48536	Aam48536 Anti-infl
45	36	90.0	6	6	ABU08420	Abu08420 Human NEM

ALIGNMENTS

RESULT 1
AAM48538
ID AAM48538 standard; peptide; 6 AA.
XX
AC AAM48538;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 41.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 61; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The

```
CC   antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC   antirheumatic, antiarthritic, osteopathic, antibacterial,
CC   immunosuppressive, dermatological, neuroprotective, nootropic,
CC   antiatherosclerotic, virucide and antiallergic activity. The compounds
CC   act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC   blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC   domain that results in inhibition of IKKbeta kinase activation and
CC   subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC   for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC   cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC   bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC   lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC   transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC   viral infections; and ataxia telangiectasia. The compounds are also
CC   useful for treating pro-inflammatory responses such as allergies,
CC   urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC   sunburn, aging and arthritis
XX
SQ   Sequence 6 AA;

  Query Match             100.0%;  Score 40;  DB 5;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 2
AAM48570
ID   AAM48570 standard; peptide; 6 AA.
XX
AC   AAM48570;
XX
DT   20-MAR-2002  (first entry)
XX
DE   Anti-inflammatory peptide SEQ ID NO 73.
XX
KW   Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW   antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW   immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW   antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW   cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW   rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW   autoimmune disorder; multiple sclerosis; transplant rejection;
KW   osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW   ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS   Synthetic.
XX
PN   WO200183554-A2.
XX
PD   08-NOV-2001.
XX
PF   02-MAY-2001; 2001WO-US014346.
XX
PR   02-MAY-2000; 2000US-0201261P.
PR   22-AUG-2000; 2000US-00643260.
XX
PA   (PRAE-) PRAECIS PHARM INC.
PA   (UYYA ) UNIV YALE.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K;
XX
DR   WPI; 2002-121889/16.
XX
PT   Novel antiinflammatory compound comprising membrane translocation domain
PT   fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT   activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS   Claim 6; Page 62; 88pp; English.
XX
CC   The invention relates to an antiinflammatory compound (especially
CC   AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC   AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC   residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC   antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC   antirheumatic, antiarthritic, osteopathic, antibacterial,
CC   immunosuppressive, dermatological, neuroprotective, nootropic,
CC   antiatherosclerotic, virucide and antiallergic activity. The compounds
CC   act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC   blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC   domain that results in inhibition of IKKbeta kinase activation and
CC   subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC   for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC   cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC   bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC   lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC   transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC   viral infections; and ataxia telangiectasia. The compounds are also
CC   useful for treating pro-inflammatory responses such as allergies,
CC   urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC   sunburn, aging and arthritis
XX
SQ   Sequence 6 AA;

  Query Match             100.0%;  Score 40;  DB 5;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 3
ADA61814
ID   ADA61814 standard; peptide; 6 AA.
XX
AC   ADA61814;
XX
DT   20-NOV-2003  (first entry)
XX
DE   NFkB essential modulator (NEMO) binding peptide #14.
XX
KW   NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW   antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW   antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW   dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW   gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW   psoriasis; rheumatoid arthritis; osteoarthritis;
KW   inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW   systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW   Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW   necrosis factor kappa B essential modulator.
XX
OS   Unidentified.
XX
PN   US2003054999-A1.
XX
PD   20-MAR-2003.
XX
PF   02-MAY-2001; 2001US-00847946.
XX
PR   02-MAY-2000; 2000US-0201261P.
XX
PA   (MAYM/) MAY M J.
PA   (GHOS/) GHOSH S.
PA   (FIND/) FINDEIS M A.
PA   (PHIL/) PHILLIPS K.
PA   (HANN/) HANNIG G.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K,  Hannig G;
XX
DR   WPI; 2003-596541/56.
```

XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 40; DB 6; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 4
ADA61846
ID ADA61846 standard; peptide; 6 AA.
XX
AC ADA61846;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #46.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 40; DB 6; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 5
AAM48574
ID AAM48574 standard; peptide; 7 AA.
XX
AC AAM48574;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 77.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,

```
CC   immunosuppressive, dermatological, neuroprotective, nootropic,
CC   antiatherosclerotic, virucide and antiallergic activity. The compounds
CC   act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC   blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC   domain that results in inhibition of IKKbeta kinase activation and
CC   subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC   for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC   cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC   bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC   lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC   transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC   viral infections; and ataxia telangiectasia. The compounds are also
CC   useful for treating pro-inflammatory responses such as allergies,
CC   urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC   sunburn, aging and arthritis
XX
SQ   Sequence 7 AA;

  Query Match             100.0%;  Score 40;  DB 5;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 6
ADA61850
ID   ADA61850 standard; peptide; 7 AA.
XX
AC   ADA61850;
XX
DT   20-NOV-2003  (first entry)
XX
DE   NFkB essential modulator (NEMO) binding peptide #50.
XX
KW   NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW   antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW   antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW   dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW   gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW   psoriasis; rheumatoid arthritis; osteoarthritis;
KW   inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW   systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW   Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW   necrosis factor kappa B essential modulator.
XX
OS   Unidentified.
XX
PN   US2003054999-A1.
XX
PD   20-MAR-2003.
XX
PF   02-MAY-2001; 2001US-00847946.
XX
PR   02-MAY-2000; 2000US-0201261P.
XX
PA   (MAYM/) MAY M J.
PA   (GHOS/) GHOSH S.
PA   (FIND/) FINDEIS M A.
PA   (PHIL/) PHILLIPS K.
PA   (HANN/) HANNIG G.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K,  Hannig G;
XX
DR   WPI; 2003-596541/56.
XX
PT   New compound for diagnosing or treating inflammatory disorders, e.g.
PT   asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT   cancer, comprises a membrane translocation domain and a NEMO binding
PT   sequence.
XX
PS   Claim 6; Page 23; 37pp; English.
XX
CC   The invention describes an anti-inflammatory compound comprising (I). The
CC   compound is useful for diagnosing or treating inflammatory disorders,
CC   such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC   inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC   systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC   Alzheimer's disease or viral infection. This is the amino acid sequence
CC   of an anti-iflammatory peptide that binds to, and down-regulates,
CC   necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ   Sequence 7 AA;

  Query Match             100.0%;  Score 40;  DB 6;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 7
AAM48575
ID   AAM48575 standard; peptide; 8 AA.
XX
AC   AAM48575;
XX
DT   20-MAR-2002  (first entry)
XX
DE   Anti-inflammatory peptide SEQ ID NO 78.
XX
KW   Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW   antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW   immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW   antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW   cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW   rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW   autoimmune disorder; multiple sclerosis; transplant rejection;
KW   osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW   ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS   Synthetic.
XX
PN   WO200183554-A2.
XX
PD   08-NOV-2001.
XX
PF   02-MAY-2001; 2001WO-US014346.
XX
PR   02-MAY-2000; 2000US-0201261P.
PR   22-AUG-2000; 2000US-00643260.
XX
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PA   (UYYA ) UNIV YALE.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K;
XX
DR   WPI; 2002-121889/16.
XX
PT   Novel antiinflammatory compound comprising membrane translocation domain
PT   fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT   activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS   Claim 6; Page 62; 88pp; English.
XX
CC   The invention relates to an antiinflammatory compound (especially
CC   AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC   AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC   residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC   antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC   antirheumatic, antiarthritic, osteopathic, antibacterial,
CC   immunosuppressive, dermatological, neuroprotective, nootropic,
```

CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 8 AA;

Query Match 100.0%; Score 40; DB 5; Length 8;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 8
AAM48567
ID AAM48567 standard; peptide; 8 AA.
XX
AC AAM48567;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 70.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 8 AA;

Query Match 100.0%; Score 40; DB 5; Length 8;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 3 ADWSWA 8

RESULT 9
ADA61851
ID ADA61851 standard; peptide; 8 AA.
XX
AC ADA61851;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #51.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or

PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 8 AA;

Query Match 100.0%; Score 40; DB 6; Length 8;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 10
ADA61843
ID ADA61843 standard; peptide; 8 AA.
XX
AC ADA61843;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #43.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 8 AA;

Query Match 100.0%; Score 40; DB 6; Length 8;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 3 ADWSWA 8

RESULT 11
AAM48573
ID AAM48573 standard; peptide; 9 AA.
XX
AC AAM48573;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 76.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by

```
CC   blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC   domain that results in inhibition of IKKbeta kinase activation and
CC   subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC   for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC   cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC   bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC   lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC   transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC   viral infections; and ataxia telangiectasia. The compounds are also
CC   useful for treating pro-inflammatory responses such as allergies,
CC   urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC   sunburn, aging and arthritis
XX
SQ   Sequence 9 AA;

  Query Match             100.0%;  Score 40;  DB 5;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          2 ADWSWA 7


RESULT 12
AAM48566
ID   AAM48566 standard; peptide; 9 AA.
XX
AC   AAM48566;
XX
DT   20-MAR-2002  (first entry)
XX
DE   Anti-inflammatory peptide SEQ ID NO 69.
XX
KW   Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW   antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW   immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW   antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW   cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW   rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW   autoimmune disorder; multiple sclerosis; transplant rejection;
KW   osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW   ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS   Synthetic.
XX
PN   WO200183554-A2.
XX
PD   08-NOV-2001.
XX
PF   02-MAY-2001; 2001WO-US014346.
XX
PR   02-MAY-2000; 2000US-0201261P.
PR   22-AUG-2000; 2000US-00643260.
XX
PA   (PRAE-) PRAECIS PHARM INC.
PA   (UYYA ) UNIV YALE.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K;
XX
DR   WPI; 2002-121889/16.
XX
PT   Novel antiinflammatory compound comprising membrane translocation domain
PT   fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT   activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS   Claim 6; Page 62; 88pp; English.
XX
CC   The invention relates to an antiinflammatory compound (especially
CC   AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC   AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC   residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC   antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC   antirheumatic, antiarthritic, osteopathic, antibacterial,
CC   immunosuppressive, dermatological, neuroprotective, nootropic,
CC   antiatherosclerotic, virucide and antiallergic activity. The compounds
CC   act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC   blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC   domain that results in inhibition of IKKbeta kinase activation and
CC   subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC   for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC   cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC   bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC   lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC   transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC   viral infections; and ataxia telangiectasia. The compounds are also
CC   useful for treating pro-inflammatory responses such as allergies,
CC   urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC   sunburn, aging and arthritis
XX
SQ   Sequence 9 AA;

  Query Match             100.0%;  Score 40;  DB 5;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 13
AAM48569
ID   AAM48569 standard; peptide; 9 AA.
XX
AC   AAM48569;
XX
DT   20-MAR-2002  (first entry)
XX
DE   Anti-inflammatory peptide SEQ ID NO 72.
XX
KW   Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW   antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW   immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW   antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW   cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW   rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW   autoimmune disorder; multiple sclerosis; transplant rejection;
KW   osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW   ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS   Synthetic.
XX
PN   WO200183554-A2.
XX
PD   08-NOV-2001.
XX
PF   02-MAY-2001; 2001WO-US014346.
XX
PR   02-MAY-2000; 2000US-0201261P.
PR   22-AUG-2000; 2000US-00643260.
XX
PA   (PRAE-) PRAECIS PHARM INC.
PA   (UYYA ) UNIV YALE.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K;
XX
DR   WPI; 2002-121889/16.
XX
PT   Novel antiinflammatory compound comprising membrane translocation domain
PT   fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT   activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS   Claim 6; Page 62; 88pp; English.
XX
CC   The invention relates to an antiinflammatory compound (especially
```

CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 40; DB 5; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 14
AAM48572
ID AAM48572 standard; peptide; 9 AA.
XX
AC AAM48572;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 75.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
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XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
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PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
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PS Claim 6; Page 62; 88pp; English.
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CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 40; DB 5; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 3 ADWSWA 8

RESULT 15
ADA61848
ID ADA61848 standard; peptide; 9 AA.
XX
AC ADA61848;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #48.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX

PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 40; DB 6; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 3 ADWSWA 8

RESULT 16
ADA61841
ID ADA61841 standard; peptide; 9 AA.
XX
AC ADA61841;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #41.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
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PA (MAYM/) MAY M J.
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XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
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PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 40; DB 6; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 17
ADA61849
ID ADA61849 standard; peptide; 9 AA.
XX
AC ADA61849;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #49.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.

```
XX
CC   The invention describes an anti-inflammatory compound comprising (I). The
CC   compound is useful for diagnosing or treating inflammatory disorders,
CC   such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC   inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC   systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC   Alzheimer's disease or viral infection. This is the amino acid sequence
CC   of an anti-iflammatory peptide that binds to, and down-regulates,
CC   necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ   Sequence 9 AA;

  Query Match            100.0%;  Score 40;  DB 6;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          2 ADWSWA 7


RESULT 18
ADA61845
ID   ADA61845 standard; peptide; 9 AA.
XX
AC   ADA61845;
XX
DT   20-NOV-2003  (first entry)
XX
DE   NFkB essential modulator (NEMO) binding peptide #45.
XX
KW   NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW   antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW   antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW   dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW   gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW   psoriasis; rheumatoid arthritis; osteoarthritis;
KW   inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW   systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW   Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW   necrosis factor kappa B essential modulator.
XX
OS   Unidentified.
XX
PN   US2003054999-A1.
XX
PD   20-MAR-2003.
XX
PF   02-MAY-2001; 2001US-00847946.
XX
PR   02-MAY-2000; 2000US-0201261P.
XX
PA   (MAYM/) MAY M J.
PA   (GHOS/) GHOSH S.
PA   (FIND/) FINDEIS M A.
PA   (PHIL/) PHILLIPS K.
PA   (HANN/) HANNIG G.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K,  Hannig G;
XX
DR   WPI; 2003-596541/56.
XX
PT   New compound for diagnosing or treating inflammatory disorders, e.g.
PT   asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT   cancer, comprises a membrane translocation domain and a NEMO binding
PT   sequence.
XX
PS   Claim 6; Page 23; 37pp; English.
XX
CC   The invention describes an anti-inflammatory compound comprising (I). The
CC   compound is useful for diagnosing or treating inflammatory disorders,
CC   such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC   inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC   systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC   Alzheimer's disease or viral infection. This is the amino acid sequence
CC   of an anti-iflammatory peptide that binds to, and down-regulates,
CC   necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ   Sequence 9 AA;

  Query Match            100.0%;  Score 40;  DB 6;  Length 9;
  Best Local Similarity  100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 19
ADA61842
ID   ADA61842 standard; peptide; 9 AA.
XX
AC   ADA61842;
XX
DT   20-NOV-2003  (first entry)
XX
DE   NFkB essential modulator (NEMO) binding peptide #42.
XX
KW   NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW   antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW   antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW   dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW   gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW   psoriasis; rheumatoid arthritis; osteoarthritis;
KW   inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW   systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW   Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW   necrosis factor kappa B essential modulator.
XX
OS   Unidentified.
XX
PN   US2003054999-A1.
XX
PD   20-MAR-2003.
XX
PF   02-MAY-2001; 2001US-00847946.
XX
PR   02-MAY-2000; 2000US-0201261P.
XX
PA   (MAYM/) MAY M J.
PA   (GHOS/) GHOSH S.
PA   (FIND/) FINDEIS M A.
PA   (PHIL/) PHILLIPS K.
PA   (HANN/) HANNIG G.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K,  Hannig G;
XX
DR   WPI; 2003-596541/56.
XX
PT   New compound for diagnosing or treating inflammatory disorders, e.g.
PT   asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT   cancer, comprises a membrane translocation domain and a NEMO binding
PT   sequence.
XX
PS   Claim 6; Page 23; 37pp; English.
XX
CC   The invention describes an anti-inflammatory compound comprising (I). The
CC   compound is useful for diagnosing or treating inflammatory disorders,
CC   such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC   inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC   systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC   Alzheimer's disease or viral infection. This is the amino acid sequence
CC   of an anti-iflammatory peptide that binds to, and down-regulates,
CC   necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
```

SQ Sequence 9 AA;

Query Match 100.0%; Score 40; DB 6; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 20
AAM48568
ID AAM48568 standard; peptide; 10 AA.
XX
AC AAM48568;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 71.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 40; DB 5; Length 10;
Best Local Similarity 100.0%; Pred. No. 2.6;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 2 ADWSWA 7

RESULT 21
AAM48571
ID AAM48571 standard; peptide; 10 AA.
XX
AC AAM48571;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 74.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory

CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 40; DB 5; Length 10;
Best Local Similarity 100.0%; Pred. No. 2.6;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 3 ADWSWA 8

RESULT 22
ADA61844
ID ADA61844 standard; peptide; 10 AA.
XX
AC ADA61844;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #44.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 40; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 2.6;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 2 ADWSWA 7

RESULT 23
ADA61847
ID ADA61847 standard; peptide; 10 AA.
XX
AC ADA61847;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #47.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 40; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 2.6;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 3 ADWSWA 8

RESULT 24
AAM48565
ID AAM48565 standard; peptide; 11 AA.
XX
AC AAM48565;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 68.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 11 AA;

Query Match 100.0%; Score 40; DB 5; Length 11;
Best Local Similarity 100.0%; Pred. No. 2.9;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 3 ADWSWA 8

RESULT 25
ADA61840
ID ADA61840 standard; peptide; 11 AA.
XX
AC ADA61840;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #40.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 11 AA;

Query Match 100.0%; Score 40; DB 6; Length 11;

Best Local Similarity 100.0%; Pred. No. 2.9;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 ADWSWA 6
              ||||||
Db          3 ADWSWA 8
```

Search completed: April 27, 2004, 08:55:57
Job time : 56 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: April 27, 2004, 08:55:32 ; Search time 55 Seconds
(without alignments)
30.823 Million cell updates/sec

Title: US-09-847-940C-6
Perfect score: 6
Sequence: 1 ADWSWA 6

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1586107 seqs, 282547505 residues

Word size : 0

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : A_Geneseq_29Jan04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	6	100.0	6	5	AAM48538	Aam48538 Anti-infl
2	6	100.0	6	5	AAM48570	Aam48570 Anti-infl
3	6	100.0	6	6	ADA61814	Ada61814 NFkB esse
4	6	100.0	6	6	ADA61846	Ada61846 NFkB esse
5	6	100.0	7	5	AAM48574	Aam48574 Anti-infl
6	6	100.0	7	6	ADA61850	Ada61850 NFkB esse
7	6	100.0	8	5	AAM48575	Aam48575 Anti-infl
8	6	100.0	8	5	AAM48567	Aam48567 Anti-infl
9	6	100.0	8	6	ADA61851	Ada61851 NFkB esse
10	6	100.0	8	6	ADA61843	Ada61843 NFkB esse
11	6	100.0	9	5	AAM48573	Aam48573 Anti-infl
12	6	100.0	9	5	AAM48566	Aam48566 Anti-infl
13	6	100.0	9	5	AAM48569	Aam48569 Anti-infl
14	6	100.0	9	5	AAM48572	Aam48572 Anti-infl
15	6	100.0	9	6	ADA61848	Ada61848 NFkB esse
16	6	100.0	9	6	ADA61841	Ada61841 NFkB esse
17	6	100.0	9	6	ADA61849	Ada61849 NFkB esse
18	6	100.0	9	6	ADA61845	Ada61845 NFkB esse
19	6	100.0	9	6	ADA61842	Ada61842 NFkB esse
20	6	100.0	10	5	AAM48568	Aam48568 Anti-infl
21	6	100.0	10	5	AAM48571	Aam48571 Anti-infl
22	6	100.0	10	6	ADA61844	Ada61844 NFkB esse
23	6	100.0	10	6	ADA61847	Ada61847 NFkB esse
24	6	100.0	11	5	AAM48565	Aam48565 Anti-infl
25	6	100.0	11	6	ADA61840	Ada61840 NFkB esse
26	5	83.3	6	5	ABB08727	Abb08727 Mutated I
27	5	83.3	6	5	ABB08728	Abb08728 Mutated I
28	5	83.3	6	5	AAM48537	Aam48537 Anti-infl
29	5	83.3	6	5	AAM48548	Aam48548 Anti-infl
30	5	83.3	6	5	AAM48559	Aam48559 Anti-infl
31	5	83.3	6	5	AAM48509	Aam48509 NBD mutan
32	5	83.3	6	5	AAM48510	Aam48510 NBD mutan
33	5	83.3	6	5	AAM48536	Aam48536 Anti-infl
34	5	83.3	6	6	ABU08420	Abu08420 Human NEM
35	5	83.3	6	6	ABU08421	Abu08421 Human NEM
36	5	83.3	6	6	ADA61778	Ada61778 IKKbeta N
37	5	83.3	6	6	ADA61812	Ada61812 NFkB esse
38	5	83.3	6	6	ADA61811	Ada61811 NFkB esse
39	5	83.3	6	6	ADA61813	Ada61813 NFkB esse
40	5	83.3	6	6	ADA61835	Ada61835 NFkB esse
41	5	83.3	6	6	ADA61779	Ada61779 IKKbeta N
42	5	83.3	6	6	ADA61824	Ada61824 NFkB esse
43	5	83.3	7	5	AAM48552	Aam48552 Anti-infl
44	5	83.3	7	5	AAM48563	Aam48563 Anti-infl
45	5	83.3	7	6	ADA61828	Ada61828 NFkB esse

ALIGNMENTS

RESULT 1
AAM48538
ID AAM48538 standard; peptide; 6 AA.
XX
AC AAM48538;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 41.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 61; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The

CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 6; DB 5; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 2
AAM48570
ID AAM48570 standard; peptide; 6 AA.
XX
AC AAM48570;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 73.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX

CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 6; DB 5; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 3
ADA61814
ID ADA61814 standard; peptide; 6 AA.
XX
AC ADA61814;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #14.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.

XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 6; DB 6; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 4
ADA61846
ID ADA61846 standard; peptide; 6 AA.
XX
AC ADA61846;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #46.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 6 AA;

Query Match 100.0%; Score 6; DB 6; Length 6;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 5
AAM48574
ID AAM48574 standard; peptide; 7 AA.
XX
AC AAM48574;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 77.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,

CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 7 AA;

```
  Query Match             100.0%;  Score 6;  DB 5;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6
```

RESULT 6
ADA61850
ID ADA61850 standard; peptide; 7 AA.
XX
AC ADA61850;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #50.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 7 AA;

```
  Query Match             100.0%;  Score 6;  DB 6;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA.6
```

RESULT 7
AAM48575
ID AAM48575 standard; peptide; 8 AA.
XX
AC AAM48575;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 78.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
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XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,

```
CC   antiatherosclerotic, virucide and antiallergic activity. The compounds
CC   act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC   blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC   domain that results in inhibition of IKKbeta kinase activation and
CC   subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC   for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC   cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC   bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC   lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC   transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC   viral infections; and ataxia telangiectasia. The compounds are also
CC   useful for treating pro-inflammatory responses such as allergies,
CC   urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC   sunburn, aging and arthritis
XX
SQ   Sequence 8 AA;

  Query Match             100.0%;  Score 6;  DB 5;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 8
AAM48567
ID   AAM48567 standard; peptide; 8 AA.
XX
AC   AAM48567;
XX
DT   20-MAR-2002  (first entry)
XX
DE   Anti-inflammatory peptide SEQ ID NO 70.
XX
KW   Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW   antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW   immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW   antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW   cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW   rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW   autoimmune disorder; multiple sclerosis; transplant rejection;
KW   osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW   ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS   Synthetic.
XX
PN   WO200183554-A2.
XX
PD   08-NOV-2001.
XX
PF   02-MAY-2001; 2001WO-US014346.
XX
PR   02-MAY-2000; 2000US-0201261P.
PR   22-AUG-2000; 2000US-00643260.
XX
PA   (PRAE-) PRAECIS PHARM INC.
PA   (UYYA ) UNIV YALE.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K;
XX
DR   WPI; 2002-121889/16.
XX
PT   Novel antiinflammatory compound comprising membrane translocation domain
PT   fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT   activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS   Claim 6; Page 62; 88pp; English.
XX
CC   The invention relates to an antiinflammatory compound (especially
CC   AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC   AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC   residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC   antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC   antirheumatic, antiarthritic, osteopathic, antibacterial,
CC   immunosuppressive, dermatological, neuroprotective, nootropic,
CC   antiatherosclerotic, virucide and antiallergic activity. The compounds
CC   act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC   blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC   domain that results in inhibition of IKKbeta kinase activation and
CC   subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC   for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC   cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC   bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC   lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC   transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC   viral infections; and ataxia telangiectasia. The compounds are also
CC   useful for treating pro-inflammatory responses such as allergies,
CC   urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC   sunburn, aging and arthritis
XX
SQ   Sequence 8 AA;

  Query Match             100.0%;  Score 6;  DB 5;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          3 ADWSWA 8


RESULT 9
ADA61851
ID   ADA61851 standard; peptide; 8 AA.
XX
AC   ADA61851;
XX
DT   20-NOV-2003  (first entry)
XX
DE   NFkB essential modulator (NEMO) binding peptide #51.
XX
KW   NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW   antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW   antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW   dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW   gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW   psoriasis; rheumatoid arthritis; osteoarthritis;
KW   inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW   systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW   Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW   necrosis factor kappa B essential modulator.
XX
OS   Unidentified.
XX
PN   US2003054999-A1.
XX
PD   20-MAR-2003.
XX
PF   02-MAY-2001; 2001US-00847946.
XX
PR   02-MAY-2000; 2000US-0201261P.
XX
PA   (MAYM/) MAY M J.
PA   (GHOS/) GHOSH S.
PA   (FIND/) FINDEIS M A.
PA   (PHIL/) PHILLIPS K.
PA   (HANN/) HANNIG G.
XX
PI   May MJ,  Ghosh S,  Findeis MA,  Phillips K,  Hannig G;
XX
DR   WPI; 2003-596541/56.
XX
PT   New compound for diagnosing or treating inflammatory disorders, e.g.
PT   asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
```

PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 8 AA;

Query Match 100.0%; Score 6; DB 6; Length 8;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 10
ADA61843
ID ADA61843 standard; peptide; 8 AA.
XX
AC ADA61843;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #43.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 8 AA;

Query Match 100.0%; Score 6; DB 6; Length 8;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 3 ADWSWA 8

RESULT 11
AAM48573
ID AAM48573 standard; peptide; 9 AA.
XX
AC AAM48573;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 76.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by

CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 6; DB 5; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 2 ADWSWA 7

RESULT 12
AAM48566
ID AAM48566 standard; peptide; 9 AA.
XX
AC AAM48566;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 69.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 6; DB 5; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 13
AAM48569
ID AAM48569 standard; peptide; 9 AA.
XX
AC AAM48569;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 72.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially

CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 6; DB 5; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 1 ADWSWA 6

RESULT 14
AAM48572
ID AAM48572 standard; peptide; 9 AA.
XX
AC AAM48572;
XX
DT 20-MAR-2002 (first entry)
XX
DE Anti-inflammatory peptide SEQ ID NO 75.
XX
KW Antiinflammatory; antiasthmatic; cytostatic; antipsoriatic; nootropic;
KW antirheumatic; antiarthritic; osteopathic; antibacterial; virucide;
KW immunosuppressive; dermatological; neuroprotective; antiatherosclerotic;
KW antiallergic; membrane translocation domain; NEMO binding domain; eczema;
KW cytokine; NFkappaB; IkappaB kinase beta; IKKbeta; cancer; psoriasis;
KW rheumatoid arthritis; osteoarthritis; inflammatory bowel disease;
KW autoimmune disorder; multiple sclerosis; transplant rejection;
KW osteoporosis; Alzheimer's disease; atherosclerosis; viral infection;
KW ataxia telangiectasia; allergy; anaphylaxis; arthritis.
XX
OS Synthetic.
XX
PN WO200183554-A2.
XX
PD 08-NOV-2001.
XX
PF 02-MAY-2001; 2001WO-US014346.
XX
PR 02-MAY-2000; 2000US-0201261P.
PR 22-AUG-2000; 2000US-00643260.
XX
PA (PRAE-) PRAECIS PHARM INC.
PA (UYYA) UNIV YALE.
XX
PI May MJ, Ghosh S, Findeis MA, Phillips K;
XX
DR WPI; 2002-121889/16.
XX
PT Novel antiinflammatory compound comprising membrane translocation domain
PT fused to NEMO binding sequence, useful for blocking nuclear factor kappaB
PT activation, and for treating asthma, lung inflammation, psoriasis.
XX
PS Claim 6; Page 62; 88pp; English.
XX
CC The invention relates to an antiinflammatory compound (especially
CC AAM48628-AAM48645), comprising a membrane translocation domain (AAM48620-
CC AMM48627 or AAM48646-AAM48651) which comprises from 6-15 amino acid
CC residues, fused to a NEMO binding sequence (AAM48525-AAM48619). The
CC antiinflammatory compounds have antiasthmatic, cytostatic, antipsoriatic,
CC antirheumatic, antiarthritic, osteopathic, antibacterial,
CC immunosuppressive, dermatological, neuroprotective, nootropic,
CC antiatherosclerotic, virucide and antiallergic activity. The compounds
CC act as selective inhibitors of cytokine-mediated NFkappaB activation by
CC blocking interaction of IkappaB kinase beta (IKKbeta) at the NEMO binding
CC domain that results in inhibition of IKKbeta kinase activation and
CC subsequent decreased phosphorylation of IkappaB. The compounds are useful
CC for treating inflammatory disorders, e.g. asthma, lung inflammation or
CC cancer, psoriasis, rheumatoid arthritis, osteoarthritis, inflammatory
CC bowel disease, sepsis, vasculitis, bursitis; autoimmune diseases such as
CC lupus, polymyalgia, scleroderma, granulomatosis, multiple sclerosis;
CC transplant rejection; osteoporosis; Alzheimer's disease; atherosclerosis;
CC viral infections; and ataxia telangiectasia. The compounds are also
CC useful for treating pro-inflammatory responses such as allergies,
CC urticaria, anaphylaxis, drug or food sensitivity, eczema, dermatitis,
CC sunburn, aging and arthritis
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 6; DB 5; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
||||||
Db 3 ADWSWA 8

RESULT 15
ADA61848
ID ADA61848 standard; peptide; 9 AA.
XX
AC ADA61848;
XX
DT 20-NOV-2003 (first entry)
XX
DE NFkB essential modulator (NEMO) binding peptide #48.
XX
KW NEMO binding domain; NBD; I kappa B kinase beta; IKKbeta;
KW antiinflammatory; antiasthmatic; antipsoriatic; antirheumatic;
KW antiarthritic; osteopathic; antibacterial; immunosuppressive;
KW dermatological; neuroprotective; cytostatic; nootropic; virucide;
KW gene therapy; anti-inflammatory; inflammatory disorder; asthma;
KW psoriasis; rheumatoid arthritis; osteoarthritis;
KW inflammatory bowel disease; sepsis; vasculitis; autoimmune disease;
KW systemic lupus erythematosus; multiple sclerosis; cancer; osteoporosis;
KW Alzheimer's disease; viral infection; NF-kappa B essential modulator;
KW necrosis factor kappa B essential modulator.
XX
OS Unidentified.
XX
PN US2003054999-A1.
XX
PD 20-MAR-2003.
XX
PF 02-MAY-2001; 2001US-00847946.
XX
PR 02-MAY-2000; 2000US-0201261P.
XX
PA (MAYM/) MAY M J.
PA (GHOS/) GHOSH S.
PA (FIND/) FINDEIS M A.
PA (PHIL/) PHILLIPS K.
PA (HANN/) HANNIG G.
XX

PI May MJ, Ghosh S, Findeis MA, Phillips K, Hannig G;
XX
DR WPI; 2003-596541/56.
XX
PT New compound for diagnosing or treating inflammatory disorders, e.g.
PT asthma, psoriasis, rheumatoid arthritis, inflammatory bowel disease or
PT cancer, comprises a membrane translocation domain and a NEMO binding
PT sequence.
XX
PS Claim 6; Page 23; 37pp; English.
XX
CC The invention describes an anti-inflammatory compound comprising (I). The
CC compound is useful for diagnosing or treating inflammatory disorders,
CC such as asthma, psoriasis, rheumatoid arthritis, osteoarthritis,
CC inflammatory bowel disease, sepsis, vasculitis, autoimmune diseases (e.g.
CC systemic lupus erythematosus), multiple sclerosis, cancer, osteoporosis,
CC Alzheimer's disease or viral infection. This is the amino acid sequence
CC of an anti-iflammatory peptide that binds to, and down-regulates,
CC necrosis factor kappa B (NFkB) essential modulator (NEMO).
XX
SQ Sequence 9 AA;

Query Match 100.0%; Score 6; DB 6; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ADWSWA 6
              ||||||
Db          3 ADWSWA 8
```

Search completed: April 27, 2004, 08:57:04
Job time : 56 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: April 27, 2004, 08:55:33 ; Search time 40 Seconds
(without alignments)
47.328 Million cell updates/sec

Title: US-09-847-940C-6
Perfect score: 6
Sequence: 1 ADWSWA 6

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1017041 seqs, 315518202 residues

Word size : 0

Total number of hits satisfying chosen parameters: 1017041

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SPTREMBL_25:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	5	83.3	205	16	Q9ACR5	Q9acr5 streptomyce
2	5	83.3	227	4	Q8IXK8	Q8ixk8 homo sapien
3	5	83.3	228	8	Q7YGU8	Q7ygu8 sphenodon p
4	5	83.3	236	3	Q8NJY9	Q8njy9 bionectria
5	5	83.3	242	12	Q919K8	Q919k8 culex nigri
6	5	83.3	274	16	Q8G659	Q8g659 bifidobacte
7	5	83.3	355	11	Q8BIT9	Q8bit9 mus musculu
8	5	83.3	358	10	O50002	O50002 prunus arme
9	5	83.3	374	16	Q9HZ10	Q9hz10 pseudomonas
10	5	83.3	375	5	Q86KS0	Q86ks0 dictyosteli
11	5	83.3	426	5	Q86KF9	Q86kf9 dictyosteli
12	5	83.3	433	16	Q8P4A1	Q8p4a1 xanthomonas
13	5	83.3	438	16	Q8PFV8	Q8pfv8 xanthomonas
14	5	83.3	452	4	Q96AB7	Q96ab7 homo sapien
15	5	83.3	463	5	Q8MMJ0	Q8mmj0 apis cerana
16	5	83.3	470	12	Q7TF27	Q7tf27 influenza a
17	5	83.3	477	11	Q9CYU6	Q9cyu6 mus musculu
18	5	83.3	484	4	Q9BTV6	Q9btv6 homo sapien
19	5	83.3	581	5	Q8MSH3	Q8msh3 drosophila
20	5	83.3	597	5	Q9VGP2	Q9vgp2 drosophila
21	5	83.3	605	16	Q82MX2	Q82mx2 streptomyce
22	5	83.3	889	16	Q9AAZ6	Q9aaz6 caulobacter
23	5	83.3	1005	10	Q9XGZ2	Q9xgz2 arabidopsis
24	5	83.3	5435	2	Q9L4X2	Q9l4x2 streptomyce
25	4	66.7	53	2	Q46496	Q46496 desulfoarcu
26	4	66.7	54	8	Q9XPF8	Q9xpf8 gonostoma g
27	4	66.7	57	10	Q84RU5	Q84ru5 oryza sativ
28	4	66.7	57	16	Q8YQ61	Q8yq61 anabaena sp
29	4	66.7	65	16	Q7UGI2	Q7ugi2 rhodopirell
30	4	66.7	74	16	Q99QG6	Q99qg6 streptomyce
31	4	66.7	76	6	Q862X5	Q862x5 bos taurus
32	4	66.7	77	16	Q7UUN4	Q7uun4 rhodopirell
33	4	66.7	77	16	Q7UGR5	Q7ugr5 rhodopirell
34	4	66.7	82	16	Q7V158	Q7v158 prochloroco
35	4	66.7	85	16	Q8FBL8	Q8fbl8 escherichia
36	4	66.7	87	9	Q8HAI2	Q8hai2 salmonella
37	4	66.7	88	16	Q97SD6	Q97sd6 streptococc
38	4	66.7	88	16	Q8CZ62	Q8cz62 streptococc
39	4	66.7	90	2	Q9F9Z5	Q9f9z5 serratia en
40	4	66.7	92	10	Q8H6W2	Q8h6w2 cicer ariet
41	4	66.7	93	2	Q939G8	Q939g8 pseudomonas
42	4	66.7	94	10	Q39643	Q39643 cucumis sat
43	4	66.7	95	15	Q9YT75	Q9yt75 human immun
44	4	66.7	96	16	Q7U4Q9	Q7u4q9 synechococc
45	4	66.7	98	16	Q8AAB6	Q8aab6 bacteroides

ALIGNMENTS

RESULT 1
Q9ACR5
ID Q9ACR5 PRELIMINARY; PRT; 205 AA.
AC Q9ACR5;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Hypothetical protein SCP1.253.
GN SCP1.253.
OS Streptomyces coelicolor.
OG Plasmid SCP1.
OC Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
OC Streptomycineae; Streptomycetaceae; Streptomyces.
OX NCBI_TaxID=1902;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=A3(2);
RX MEDLINE=21996410; PubMed=12000953;
RA Bentley S.D., Chater K.F., Cerdeno-Tarraga A.-M., Challis G.L.,
RA Thomson N.R., James K.D., Harris D.E., Quail M.A., Kieser H.,
RA Harper D., Bateman A., Brown S., Chandra G., Chen C.W., Collins M.,
RA Cronin A., Fraser A., Goble A., Hidalgo J., Hornsby T., Howarth S.,
RA Huang C.-H., Kieser T., Larke L., Murphy L., Oliver K., O'Neil S.,
RA Rabbinowitsch E., Rajandream M.A., Rutherford K., Rutter S.,
RA Seeger K., Saunders D., Sharp S., Squares R., Squares S., Taylor K.,
RA Warren T., Wietzorrek A., Woodward J., Barrell B.G., Parkhill J.,
RA Hopwood D.A.;
RT "Complete genome sequence of the model actinomycete Streptomyces
RT coelicolor A3(2).";
RL Nature 417:141-147(2002).
DR EMBL; AL590464; CAC36779.1; -.
DR GO; GO:0046821; C:extrachromosomal DNA; IEA.
KW Hypothetical protein; Plasmid; Complete proteome.
SQ SEQUENCE 205 AA; 23051 MW; 6602396CFF93F2D9 CRC64;

Query Match 83.3%; Score 5; DB 16; Length 205;
Best Local Similarity 100.0%; Pred. No. 44;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ADWSW 5
              |||||
Db         10 ADWSW 14


RESULT 2
Q8IXK8
ID   Q8IXK8      PRELIMINARY;      PRT;   227 AA.
AC   Q8IXK8;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Similar to hypothetical protein BC017335.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RA   Strausberg R.;
RL   Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC040173; AAH40173.1; -.
KW   Hypothetical protein.
SQ   SEQUENCE   227 AA;  25487 MW;  F11A71EA57062A05 CRC64;

  Query Match             83.3%;  Score 5;  DB 4;  Length 227;
  Best Local Similarity   100.0%;  Pred. No. 48;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        113 ADWSW 117


RESULT 3
Q7YGU8
ID   Q7YGU8      PRELIMINARY;      PRT;   228 AA.
AC   Q7YGU8;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Cytochrome oxidase subunit II.
OS   Sphenodon punctatus (Hatteria) (Tuatara).
OG   Mitochondrion.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Lepidosauria; Sphenodontia; Sphenodontidae; Sphenodon.
OX   NCBI_TaxID=8508;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Rest J.S., Ast J.C., Austin C.C., Waddell P.J., Tibbetts E.A.,
RA   Hay J.M., Mindell D.P.;
RT   "Molecular systematics of primary reptilian lineages and the tuatara
RT   mitochondrial genome.";
RL   Mol. Phylogenet. Evol. 0:0-0(2003).
DR   EMBL; AF534390; AAP42708.1; -.
KW   Mitochondrion.
SQ   SEQUENCE   228 AA;  25903 MW;  AC52448F76C9F0A4 CRC64;

  Query Match             83.3%;  Score 5;  DB 8;  Length 228;
  Best Local Similarity   100.0%;  Pred. No. 48;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db        221 DWSWA 225


RESULT 4
Q8NJY9
ID   Q8NJY9      PRELIMINARY;      PRT;   236 AA.
AC   Q8NJY9;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Endoglucanase.
GN   CEL12C.
OS   Bionectria ochroleuca (Gliocladium roseum).
OC   Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;
OC   Hypocreomycetidae; Hypocreales; Bionectriaceae; Bionectria.
OX   NCBI_TaxID=29856;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22067395; PubMed=12073090;
RA   Goedegebuur F., Fowler T., Phillips J., van der Kley P.,
RA   van Solingen P., Dankmeyer L., Power S.D.;
RT   "Cloning and relational analysis of 15 novel fungal endoglucanases
RT   from family 12 glycosyl hydrolase.";
RL   Curr. Genet. 41:89-98(2002).
DR   EMBL; AF435065; AAM77708.1; -.
DR   GO; GO:0008810; F:cellulase activity; IEA.
DR   GO; GO:0000272; P:polysaccharide catabolism; IEA.
DR   InterPro; IPR008985; ConA_like_lec_gl.
DR   InterPro; IPR002594; Glyco_hydro_12.
DR   Pfam; PF01670; Glyco_hydro_12; 1.
DR   ProDom; PD004316; Glyco_hydro_12; 1.
SQ   SEQUENCE   236 AA;  26024 MW;  C3D8A7E33F0C41D8 CRC64;

  Query Match             83.3%;  Score 5;  DB 3;  Length 236;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db         63 ADWSW 67


RESULT 5
Q919K8
ID   Q919K8      PRELIMINARY;      PRT;   242 AA.
AC   Q919K8;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE   CUN068 hypothetical protein.
GN   CUN068.
OS   Culex nigripalpus baculovirus.
OC   Viruses; dsDNA viruses, no RNA stage; Baculoviridae.
OX   NCBI_TaxID=130556;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Florida1997;
RX   MEDLINE=21488685; PubMed=11602755;
RA   Afonso C.L., Tulman E.R., Lu Z., Balinsky C.A., Moser B.A.,
RA   Becnel J.J., Rock D.L., Kutish G.F.;
RT   "Genome Sequence of a Baculovirus Pathogenic for Culex nigripalpus.";
RL   J. Virol. 75:11157-11165(2001).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Florida1997;
RA   Afonso C.L., Tulman E.R., Lu Z., Balinsky C.A., Moser B.A.,
RA   Becnel J.J., Rock D.L., Kutish G.F.;
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF403738; AAK94146.1; -.
KW   Hypothetical protein.
SQ   SEQUENCE   242 AA;  27222 MW;  6014967531110E52 CRC64;

  Query Match             83.3%;  Score 5;  DB 12;  Length 242;
  Best Local Similarity   100.0%;  Pred. No. 51;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db         80 DWSWA 84
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RESULT 6
Q8G659
ID   Q8G659      PRELIMINARY;      PRT;   274 AA.
AC   Q8G659;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Probable dihydroorotate dehydrogenase electron transfer subunit.
GN   PYRK OR BL0790.
OS   Bifidobacterium longum.
OC   Bacteria; Actinobacteria; Actinobacteridae; Bifidobacteriales;
OC   Bifidobacteriaceae; Bifidobacterium.
OX   NCBI_TaxID=216816;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=NCC 2705;
RX   MEDLINE=22294977; PubMed=12381787;
RA   Schell M.A., Karmirantzou M., Snel B., Vilanova D., Berger B.,
RA   Pessi G., Zwahlen M.-C., Desiere F., Bork P., Delley M.,
RA   Pridmore R.D., Arigoni F.;
RT   "The genome sequence of Bifidobacterium longum reflects its adaptation
RT   to the human gastrointestinal tract.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:14422-14427(2002).
DR   EMBL; AE014701; AAN24605.1; -.
DR   GO; GO:0016491; F:oxidoreductase activity; IEA.
DR   GO; GO:0006118; P:electron transport; IEA.
DR   InterPro; IPR008333; FAD_binding_6.
DR   Pfam; PF00970; FAD_binding_6; 1.
KW   Complete proteome.
SQ   SEQUENCE   274 AA;  29978 MW;  971E0016E79636DB CRC64;

  Query Match             83.3%;  Score 5;  DB 16;  Length 274;
  Best Local Similarity   100.0%;  Pred. No. 57;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        171 ADWSW 175


RESULT 7
Q8BIT9
ID   Q8BIT9      PRELIMINARY;      PRT;   355 AA.
AC   Q8BIT9;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Mitochondrial ribosomal protein L41 homolog.
GN   2810443J12RIK.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=NOD; TISSUE=Thymus;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK087998; BAC40084.1; -.
DR   MGD; MGI:1914478; 2810443J12Rik.
DR   InterPro; IPR001680; WD40.
DR   Pfam; PF00400; WD40; 2.
DR   SMART; SM00320; WD40; 4.
DR   PROSITE; PS00678; WD_REPEATS_1; 1.
DR   PROSITE; PS50294; WD_REPEATS_REGION; 1.
SQ   SEQUENCE   355 AA;  40183 MW;  FEF8546127402D58 CRC64;

  Query Match             83.3%;  Score 5;  DB 11;  Length 355;
  Best Local Similarity   100.0%;  Pred. No. 72;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        215 ADWSW 219


RESULT 8
O50002
ID   O50002      PRELIMINARY;      PRT;   358 AA.
AC   O50002;
DT   01-JUN-1998 (TrEMBLrel. 06, Created)
DT   01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Cysteine protease.
OS   Prunus armeniaca (Apricot).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC   eurosids I; Rosales; Rosaceae; Amygdaloideae; Prunus.
OX   NCBI_TaxID=36596;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Bergeron; TISSUE=Mesocarp, and Exocarp;
RA   Mbeguie-A-Mbeguie D., Gomez R.-M., Fils-Lycaon B.;
RT   "Sequence of AFTP1, a Cysteine Proteinase From Apricot Fruit
RT   (Accession No. U93166). Gene Expression During Fruit Ripening. (PGR97-
RT   179).";
RL   Plant Physiol. 115:1730-1730(1997).
DR   EMBL; U93166; AAB97142.1; -.
DR   HSSP; P07711; 1CJL.
DR   MEROPS; C01.041; -.
DR   GO; GO:0004197; F:cysteine-type endopeptidase activity; IEA.
DR   GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
DR   InterPro; IPR001092; HLH_basic.
DR   InterPro; IPR000668; Peptidase_C1.
DR   InterPro; IPR000169; SHprot_acsite.
DR   Pfam; PF00112; Peptidase_C1; 1.
DR   PRINTS; PR00705; PAPAIN.
DR   ProDom; PD000158; Peptidase_C1; 1.
DR   SMART; SM00645; Pept_C1; 1.
DR   PROSITE; PS00038; HLH_1; 1.
DR   PROSITE; PS00640; THIOL_PROTEASE_ASN; 1.
DR   PROSITE; PS00139; THIOL_PROTEASE_CYS; 1.
DR   PROSITE; PS00639; THIOL_PROTEASE_HIS; 1.
KW   Hydrolase; Protease; Thiol protease.
SQ   SEQUENCE   358 AA;  39309 MW;  C98F78793B002554 CRC64;

  Query Match             83.3%;  Score 5;  DB 10;  Length 358;
  Best Local Similarity   100.0%;  Pred. No. 73;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        108 ADWSW 112


RESULT 9
Q9HZ10
ID   Q9HZ10      PRELIMINARY;      PRT;   374 AA.
AC   Q9HZ10;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Hypothetical protein PA3230.
GN   PA3230.
OS   Pseudomonas aeruginosa.
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC   Pseudomonadaceae; Pseudomonas.
OX   NCBI_TaxID=287;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=ATCC 15692 / PAO1;
RX   MEDLINE=20437337; PubMed=10984043;
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RA   Stover C.K., Pham X.-Q.T., Erwin A.L., Mizoguchi S.D., Warrener P.,
RA   Hickey M.J., Brinkman F.S.L., Hufnagle W.O., Kowalik D.J., Lagrou M.,
RA   Garber R.L., Goltry L., Tolentino E., Westbrock-Wadman S., Yuan Y.,
RA   Brody L.L., Coulter S.N., Folger K.R., Kas A., Larbig K., Lim R.M.,
RA   Smith K.A., Spencer D.H., Wong G.K.-S., Wu Z., Paulsen I.T.,
RA   Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olson M.V.;
RT   "Complete genome sequence of Pseudomonas aeruginosa PAO1, an
RT   opportunistic pathogen.";
RL   Nature 406:959-964(2000).
DR   EMBL; AE004746; AAG06618.1; -.
DR   PIR; B83241; B83241.
DR   InterPro; IPR007434; DUF482.
DR   Pfam; PF04339; DUF482; 1.
KW   Hypothetical protein; Complete proteome.
SQ   SEQUENCE   374 AA;  42269 MW;  31EF185C4F683884 CRC64;

  Query Match             83.3%;  Score 5;  DB 16;  Length 374;
  Best Local Similarity   100.0%;  Pred. No. 76;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db         81 DWSWA 85


RESULT 10
Q86KS0
ID   Q86KS0      PRELIMINARY;      PRT;   375 AA.
AC   Q86KS0;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Hypothetical protein.
OS   Dictyostelium discoideum (Slime mold).
OC   Eukaryota; Mycetozoa; Dictyosteliida; Dictyostelium.
OX   NCBI_TaxID=44689;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=AX4;
RX   MEDLINE=22092622; PubMed=12097910;
RA   Gloeckner G., Eichinger L., Szafranski K., Pachebat J., Dear P.,
RA   Lehmann R., Baumgart C., Parra G., April J.F., Guigo R., Kumpf K.,
RA   Tunggal B., Cox E., Quail M.A., Platzer M., Rosenthal A., Noegel A.A.;
RT   "Sequence and analysis of chromosome 2 of Dictyostelium discoideum.";
RL   Nature 418:79-85(2002).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=AX4;
RA   Baumgart C.;
RL   Submitted (MAR-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AC115612; AAO50929.1; -.
DR   GO; GO:0003824; F:catalytic activity; IEA.
DR   GO; GO:0008152; P:metabolism; IEA.
DR   InterPro; IPR000581; ILVD_EDD_family.
DR   InterPro; IPR006970; PT.
DR   Pfam; PF04886; PT; 1.
DR   PROSITE; PS00886; ILVD_EDD_1; 1.
KW   Hypothetical protein.
SQ   SEQUENCE   375 AA;  41862 MW;  EC9A1D744C56856E CRC64;

  Query Match             83.3%;  Score 5;  DB 5;  Length 375;
  Best Local Similarity   100.0%;  Pred. No. 76;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db         47 DWSWA 51


RESULT 11
Q86KF9
ID   Q86KF9      PRELIMINARY;      PRT;   426 AA.
AC   Q86KF9;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Similar to Mus musculus (Mouse). DnaJ homolog subfamily B member 5
DE   (Heat shock protein Hsp40-3) (Heat shock protein cognate 40)
DE   (Hsc40).
OS   Dictyostelium discoideum (Slime mold).
OC   Eukaryota; Mycetozoa; Dictyosteliida; Dictyostelium.
OX   NCBI_TaxID=44689;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=AX4;
RX   MEDLINE=22092622; PubMed=12097910;
RA   Gloeckner G., Eichinger L., Szafranski K., Pachebat J., Dear P.,
RA   Lehmann R., Baumgart C., Parra G., April J.F., Guigo R., Kumpf K.,
RA   Tunggal B., Cox E., Quail M.A., Platzer M., Rosenthal A., Noegel A.A.;
RT   "Sequence and analysis of chromosome 2 of Dictyostelium discoideum.";
RL   Nature 418:79-85(2002).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=AX4;
RA   Baumgart C.;
RL   Submitted (MAR-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AC115680; AAO51091.1; -.
DR   GO; GO:0003773; F:heat shock protein activity; IEA.
DR   InterPro; IPR001623; DnaJ_N.
DR   InterPro; IPR003095; Hsp_DnaJ.
DR   Pfam; PF00226; DnaJ; 1.
DR   PRINTS; PR00625; DNAJPROTEIN.
DR   SMART; SM00271; DnaJ; 1.
DR   PROSITE; PS00636; DNAJ_1; 1.
DR   PROSITE; PS50076; DNAJ_2; 1.
KW   Heat shock.
SQ   SEQUENCE   426 AA;  48376 MW;  EBF9F37295925727 CRC64;

  Query Match             83.3%;  Score 5;  DB 5;  Length 426;
  Best Local Similarity   100.0%;  Pred. No. 86;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db        127 DWSWA 131


RESULT 12
Q8P4A1
ID   Q8P4A1      PRELIMINARY;      PRT;   433 AA.
AC   Q8P4A1;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Cationic amino acid transporter.
GN   XCC3809.
OS   Xanthomonas campestris (pv. campestris).
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
OC   Xanthomonadaceae; Xanthomonas.
OX   NCBI_TaxID=340;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=ATCC 33913 / NCPPB 528;
RX   MEDLINE=22022145; PubMed=12024217;
RA   da Silva A.C.R., Ferro J.A., Reinach F.C., Farah C.S., Furlan L.R.,
RA   Quaggio R.B., Monteiro-Vitorello C.B., Van Sluys M.A., Almeida N.F.,
RA   Alves L.M.C., do Amaral A.M., Bertolini M.C., Camargo L.E.A.,
RA   Camarotte G., Cannavan F., Cardozo J., Chambergo F., Ciapina L.P.,
RA   Cicarelli R.M.B., Coutinho L.L., Cursino-Santos J.R., El-Dorry H.,
RA   Faria J.B., Ferreira A.J.S., Ferreira R.C.C., Ferro M.I.T.,
RA   Formighieri E.F., Franco M.C., Greggio C.C., Gruber A.,
RA   Katsuyama A.M., Kishi L.T., Leite R.P., Lemos E.G.M., Lemos M.V.F.,
RA   Locali E.C., Machado M.A., Madeira A.M.B.N., Martinez-Rossi N.M.,
RA   Martins E.C., Meidanis J., Menck C.F.M., Miyaki C.Y., Moon D.H.,
RA   Moreira L.M., Novo M.T.M., Okura V.K., Oliveira M.C., Oliveira V.R.,
RA   Pereira H.A., Rossi A., Sena J.A.D., Silva C., de Souza R.F.,
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RA   Spinola L.A.F., Takita M.A., Tamura R.E., Teixeira E.C., Tezza R.I.D.,
RA   Trindade dos Santos M., Truffi D., Tsai S.M., White F.F.,
RA   Setubal J.C., Kitajima J.P.;
RT   "Comparison of the genomes of two Xanthomonas pathogens with differing
RT   host specificities.";
RL   Nature 417:459-463(2002).
DR   EMBL; AE012502; AAM43483.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005279; F:amino acid-polyamine transporter activity; IEA.
DR   GO; GO:0006865; P:amino acid transport; IEA.
DR   GO; GO:0006810; P:transport; IEA.
DR   InterPro; IPR002293; AA/rel_permease1.
DR   InterPro; IPR004841; Permease_region.
DR   Pfam; PF00324; aa_permeases; 1.
KW   Complete proteome.
SQ   SEQUENCE   433 AA;  45128 MW;  EF217D2A7C516533 CRC64;

  Query Match             83.3%;  Score 5;  DB 16;  Length 433;
  Best Local Similarity   100.0%;  Pred. No. 87;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db        181 DWSWA 185


RESULT 13
Q8PFV8
ID   Q8PFV8      PRELIMINARY;      PRT;   438 AA.
AC   Q8PFV8;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Cationic amino acid transporter.
GN   XAC3864.
OS   Xanthomonas axonopodis (pv. citri).
OC   Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
OC   Xanthomonadaceae; Xanthomonas.
OX   NCBI_TaxID=92829;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=306 / ATCC 13902 / XV 101;
RX   MEDLINE=22022145; PubMed=12024217;
RA   da Silva A.C.R., Ferro J.A., Reinach F.C., Farah C.S., Furlan L.R.,
RA   Quaggio R.B., Monteiro-Vitorello C.B., Van Sluys M.A., Almeida N.F.,
RA   Alves L.M.C., do Amaral A.M., Bertolini M.C., Camargo L.E.A.,
RA   Camarotte G., Cannavan F., Cardozo J., Chambergo F., Ciapina L.P.,
RA   Cicarelli R.M.B., Coutinho L.L., Cursino-Santos J.R., El-Dorry H.,
RA   Faria J.B., Ferreira A.J.S., Ferreira R.C.C., Ferro M.I.T.,
RA   Formighieri E.F., Franco M.C., Greggio C.C., Gruber A.,
RA   Katsuyama A.M., Kishi L.T., Leite R.P., Lemos E.G.M., Lemos M.V.F.,
RA   Locali E.C., Machado M.A., Madeira A.M.B.N., Martinez-Rossi N.M.,
RA   Martins E.C., Meidanis J., Menck C.F.M., Miyaki C.Y., Moon D.H.,
RA   Moreira L.M., Novo M.T.M., Okura V.K., Oliveira M.C., Oliveira V.R.,
RA   Pereira H.A., Rossi A., Sena J.A.D., Silva C., de Souza R.F.,
RA   Spinola L.A.F., Takita M.A., Tamura R.E., Teixeira E.C., Tezza R.I.D.,
RA   Trindade dos Santos M., Truffi D., Tsai S.M., White F.F.,
RA   Setubal J.C., Kitajima J.P.;
RT   "Comparison of the genomes of two Xanthomonas pathogens with differing
RT   host specificities.";
RL   Nature 417:459-463(2002).
DR   EMBL; AE012036; AAM38706.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005279; F:amino acid-polyamine transporter activity; IEA.
DR   GO; GO:0006865; P:amino acid transport; IEA.
DR   GO; GO:0006810; P:transport; IEA.
DR   InterPro; IPR002293; AA/rel_permease1.
DR   InterPro; IPR004841; Permease_region.
DR   Pfam; PF00324; aa_permeases; 1.
KW   Complete proteome.
SQ   SEQUENCE   438 AA;  45795 MW;  921AC5AC60A545E2 CRC64;

  Query Match             83.3%;  Score 5;  DB 16;  Length 438;
  Best Local Similarity   100.0%;  Pred. No. 88;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db        183 DWSWA 187


RESULT 14
Q96AB7
ID   Q96AB7      PRELIMINARY;      PRT;   452 AA.
AC   Q96AB7;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Hypothetical protein FLJ90634.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Skin;
RA   Strausberg R.;
RL   Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Placenta;
RA   Isogai T., Ota T., Nishikawa T., Hayashi K., Otsuki T., Sugiyama T.,
RA   Suzuki Y., Nagai K., Sugano S., Ishii S., Kawai-Hio Y., Saito K.,
RA   Yamamoto J., Wakamatsu A., Nakamura Y., Kojima S., Nagahari K.,
RA   Masuho Y., Ono T., Okano K., Yoshikawa Y., Aotsuka S., Sasaki N.,
RA   Hattori A., Okumura K., Iwayanagi T., Ninomiya K.;
RT   "NEDO human cDNA sequencing project.";
RL   Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC017335; AAH17335.1; -.
DR   EMBL; AK075115; BAC11411.1; -.
DR   InterPro; IPR001680; WD40.
DR   Pfam; PF00400; WD40; 2.
DR   PROSITE; PS00678; WD_REPEATS_1; 2.
DR   PROSITE; PS50082; WD_REPEATS_2; 1.
DR   PROSITE; PS50294; WD_REPEATS_REGION; 1.
KW   Hypothetical protein; Repeat; WD repeat.
SQ   SEQUENCE   452 AA;  50575 MW;  B79D25EE38096733 CRC64;

  Query Match             83.3%;  Score 5;  DB 4;  Length 452;
  Best Local Similarity   100.0%;  Pred. No. 90;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        338 ADWSW 342


RESULT 15
Q8MMJ0
ID   Q8MMJ0      PRELIMINARY;      PRT;   463 AA.
AC   Q8MMJ0;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Major royal jelly protein MRJP2 precursor.
GN   MRJP2.
OS   Apis cerana (Indian honeybee).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Apoidea;
OC   Apidae; Apis.
OX   NCBI_TaxID=7461;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Nurse heads;
RA   Sittipraneed S., Imjongjirak C.;
RT   "Molecular Cloning of Major Royal Jelly Protein (MRJP2) cDNA from Apis
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RT   cerana in Thailand.";
RL   Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF525777; AAM88282.1; -.
DR   InterPro; IPR003534; Royaljelly.
DR   Pfam; PF03022; MRJP; 1.
DR   PRINTS; PR01366; ROYALJELLY.
KW   Signal.
FT   SIGNAL        1     17       POTENTIAL.
SQ   SEQUENCE   463 AA;  52412 MW;  D648AE2BAF1EDDE9 CRC64;

  Query Match             83.3%;  Score 5;  DB 5;  Length 463;
  Best Local Similarity   100.0%;  Pred. No. 92;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db        110 DWSWA 114


Search completed: April 27, 2004, 08:57:58
Job time : 42 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: April 27, 2004, 08:55:33 ; Search time 11 Seconds
(without alignments)
28.402 Million cell updates/sec

Title: US-09-847-940C-6
Perfect score: 6
Sequence: 1 ADWSWA 6

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 141681 seqs, 52070155 residues

Word size : 0

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	5	83.3	470	1	NRAM_IADBU	Q07570 influenza a
2	5	83.3	470	1	NRAM_IADCH	Q07571 influenza a
3	5	83.3	470	1	NRAM_IADH2	Q07572 influenza a
4	5	83.3	470	1	NRAM_IADM2	Q07573 influenza a
5	5	83.3	470	1	NRAM_IADU3	Q07599 influenza a
6	5	83.3	470	1	NRAM_IAGFN	Q07574 influenza a
7	5	83.3	470	1	NRAM_IAHGD	Q07577 influenza a
8	5	83.3	470	1	NRAM_IAHJI	Q07578 influenza a
9	5	83.3	470	1	NRAM_IAMAE	Q07583 influenza a
10	5	83.3	470	1	NRAM_IATKL	Q07585 influenza a
11	5	83.3	598	1	MRJ5_APIME	O97432 apis mellif
12	4	66.7	31	1	LCCB_LEUME	P81052 leuconostoc
13	4	66.7	36	1	TXD3_PARLU	P83258 paracoelote
14	4	66.7	37	1	TXD1_PARLU	P83256 paracoelote
15	4	66.7	93	1	ACYP_MYCTU	P56543 mycobacteri
16	4	66.7	114	1	Y451_BUCAP	Q8k998 buchnera ap
17	4	66.7	128	1	YRDN_BACSU	P94502 bacillus su
18	4	66.7	147	1	VG29_BPMD2	O64223 mycobacteri
19	4	66.7	147	1	VG29_BPML5	Q05236 mycobacteri
20	4	66.7	160	1	YB19_PSEPK	Q88nt5 pseudomonas
21	4	66.7	169	1	CX41_MOUSE	P19783 mus musculu
22	4	66.7	169	1	CX41_RAT	P10888 rattus norv
23	4	66.7	182	1	RL18_HALN1	P50562 halobacteri
24	4	66.7	197	1	YE21_AQUAE	O67415 aquifex aeo
25	4	66.7	200	1	HAM1_STRPN	Q97nx3 streptococc
26	4	66.7	208	1	TATB_XANAC	Q8pex3 xanthomonas
27	4	66.7	213	1	VNCN_PAVBO	P07295 bovine parv
28	4	66.7	227	1	RECO_PSESM	Q87xg3 pseudomonas
29	4	66.7	233	1	RECO_PSEAE	Q9xcx7 pseudomonas
30	4	66.7	237	1	UBIE_LISMO	Q92a77 listeria mo
31	4	66.7	256	1	TAM_RHILO	Q98k73 rhizobium l
32	4	66.7	257	1	YK09_RALSO	Q8xxv4 ralstonia s
33	4	66.7	262	1	DET2_ARATH	Q38944 arabidopsis
34	4	66.7	272	1	CY1_RHORU	P23135 rhodospiril
35	4	66.7	279	1	HRP5_HUMAN	Q96kn8 homo sapien
36	4	66.7	280	1	CHR2_PSEAE	Q9i6v7 pseudomonas
37	4	66.7	282	1	3MG2_ECOLI	P04395 escherichia
38	4	66.7	284	1	RP32_PSEAE	P42378 pseudomonas
39	4	66.7	289	1	PORI_RHOBL	P39767 rhodopseudo
40	4	66.7	291	1	C552_PSEST	P24037 pseudomonas
41	4	66.7	295	1	RSP4_BOVIN	P26452 bos taurus
42	4	66.7	295	1	RSP4_CRIGR	P38982 cricetulus
43	4	66.7	295	1	RSP4_HUMAN	P08865 homo sapien
44	4	66.7	295	1	RSP4_MOUSE	P14206 mus musculu
45	4	66.7	295	1	RSP4_RAT	P38983 rattus norv

ALIGNMENTS

RESULT 1
NRAM_IADBU
ID NRAM_IADBU STANDARD; PRT; 470 AA.
AC Q07570;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Neuraminidase (EC 3.2.1.18).
GN NA.
OS Influenza A virus (strain A/Duck/Burjatia/652/88).
OC Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC Influenza A viruses; Influenzavirus A.
OX NCBI_TaxID=38956;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=93212520; PubMed=8460490;
RA Saito T., Kawaoka Y., Webster R.G.;
RT "Phylogenetic analysis of the N8 neuraminidase gene of influenza A viruses.";
RL Virology 193:868-876(1993).
CC -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side chains of the host cell surface proteins and from the viral envelope. Such a reaction prevents self-aggregation and facilitate the mobility of the virus to and from the site of infection.
CC -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-, alpha-(2->8)-glycosidic linkages of terminal sialic residues in oligosaccharides, glycoproteins, glycolipids, colominic acid and synthetic substrates.
CC -!- SUBUNIT: Homotetramer.
CC -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped spike on the surface of the virion.
CC -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC --

CC --
DR EMBL; L06572; AAA43365.1; -.
DR HSSP; P06820; 2BAT.
DR InterPro; IPR001860; Glyco_hydro_34.
DR Pfam; PF00064; neur; 1.
DR ProDom; PD000431; Glyco_hydro_34; 1.
KW Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT TRANSMEM 7 38 ANCHOR (BY SIMILARITY).
FT DOMAIN 39 88 HYPERVARIABLE STALK REGION.
FT DOMAIN 89 470 HEAD OF NEURAMINIDASE.
FT ACT_SITE 273 273 BY SIMILARITY.
FT ACT_SITE 275 275 BY SIMILARITY.
FT CARBOHYD 46 46 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 54 54 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 144 144 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 293 293 N-LINKED (GLCNAC. . .) (POTENTIAL).

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FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  51989 MW;  D1A6F07460F6F8AD CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        453 ADWSW 457


RESULT 2
NRAM_IADCH
ID   NRAM_IADCH     STANDARD;      PRT;   470 AA.
AC   Q07571;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuraminidase (EC 3.2.1.18).
GN   NA.
OS   Influenza A virus (strain A/Duck/Chabarovsk/1610/72).
OC   Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC   Influenza A viruses; Influenzavirus A.
OX   NCBI_TaxID=38957;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93212520; PubMed=8460490;
RA   Saito T., Kawaoka Y., Webster R.G.;
RT   "Phylogenetic analysis of the N8 neuraminidase gene of influenza A
RT   viruses.";
RL   Virology 193:868-876(1993).
CC   -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side
CC       chains of the host cell surface proteins and from the viral
CC       envelope. Such a reaction prevents self-aggregation and facilitate
CC       the mobility of the virus to and from the site of infection.
CC   -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-,
CC       alpha-(2->8)-glycosidic linkages of terminal sialic residues in
CC       oligosaccharides, glycoproteins, glycolipids, colominic acid and
CC       synthetic substrates.
CC   -!- SUBUNIT: Homotetramer.
CC   -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped
CC       spike on the surface of the virion.
CC   -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; L06573; AAA43367.1; -.
DR   HSSP; P06820; 2BAT.
DR   InterPro; IPR001860; Glyco_hydro_34.
DR   Pfam; PF00064; neur; 1.
DR   ProDom; PD000431; Glyco_hydro_34; 1.
KW   Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT   TRANSMEM      7     38       ANCHOR (BY SIMILARITY).
FT   DOMAIN       39     88       HYPERVARIABLE STALK REGION.
FT   DOMAIN       89    470       HEAD OF NEURAMINIDASE.
FT   ACT_SITE    273    273       BY SIMILARITY.
FT   ACT_SITE    275    275       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     54     54       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     84     84       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    293    293       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  52070 MW;  169AB89FBE8006DC CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        453 ADWSW 457


RESULT 3
NRAM_IADH2
ID   NRAM_IADH2     STANDARD;      PRT;   470 AA.
AC   Q07572;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuraminidase (EC 3.2.1.18).
GN   NA.
OS   Influenza A virus (strain A/Duck/Hokkaido/8/80).
OC   Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC   Influenza A viruses; Influenzavirus A.
OX   NCBI_TaxID=11358;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93212520; PubMed=8460490;
RA   Saito T., Kawaoka Y., Webster R.G.;
RT   "Phylogenetic analysis of the N8 neuraminidase gene of influenza A
RT   viruses.";
RL   Virology 193:868-876(1993).
CC   -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side
CC       chains of the host cell surface proteins and from the viral
CC       envelope. Such a reaction prevents self-aggregation and facilitate
CC       the mobility of the virus to and from the site of infection.
CC   -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-,
CC       alpha-(2->8)-glycosidic linkages of terminal sialic residues in
CC       oligosaccharides, glycoproteins, glycolipids, colominic acid and
CC       synthetic substrates.
CC   -!- SUBUNIT: Homotetramer.
CC   -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped
CC       spike on the surface of the virion.
CC   -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   use by non-profit institutions as long as its content is in no way
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; L06574; AAA43372.1; -.
DR   HSSP; P06820; 2BAT.
DR   InterPro; IPR001860; Glyco_hydro_34.
DR   Pfam; PF00064; neur; 1.
DR   ProDom; PD000431; Glyco_hydro_34; 1.
KW   Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT   TRANSMEM      7     38       ANCHOR (BY SIMILARITY).
FT   DOMAIN       39     88       HYPERVARIABLE STALK REGION.
FT   DOMAIN       89    470       HEAD OF NEURAMINIDASE.
FT   ACT_SITE    273    273       BY SIMILARITY.
FT   ACT_SITE    275    275       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     54     54       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     84     84       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    293    293       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  52015 MW;  E1C1D3E2C650B93C CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
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              |||||
Db        453 ADWSW 457


RESULT 4
NRAM_IADM2
ID   NRAM_IADM2     STANDARD;      PRT;   470 AA.
AC   Q07573;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuraminidase (EC 3.2.1.18).
GN   NA.
OS   Influenza A virus (strain A/Duck/Memphis/928/74).
OC   Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC   Influenza A viruses; Influenzavirus A.
OX   NCBI_TaxID=11367;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93212520; PubMed=8460490;
RA   Saito T., Kawaoka Y., Webster R.G.;
RT   "Phylogenetic analysis of the N8 neuraminidase gene of influenza A
RT   viruses.";
RL   Virology 193:868-876(1993).
CC   -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side
CC       chains of the host cell surface proteins and from the viral
CC       envelope. Such a reaction prevents self-aggregation and facilitate
CC       the mobility of the virus to and from the site of infection.
CC   -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-,
CC       alpha-(2->8)-glycosidic linkages of terminal sialic residues in
CC       oligosaccharides, glycoproteins, glycolipids, colominic acid and
CC       synthetic substrates.
CC   -!- SUBUNIT: Homotetramer.
CC   -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped
CC       spike on the surface of the virion.
CC   -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   use by non-profit institutions as long as its content is in no way
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; L06575; AAA43404.1; -.
DR   HSSP; P06820; 2BAT.
DR   InterPro; IPR001860; Glyco_hydro_34.
DR   Pfam; PF00064; neur; 1.
DR   ProDom; PD000431; Glyco_hydro_34; 1.
KW   Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT   TRANSMEM      7     38       ANCHOR (BY SIMILARITY).
FT   DOMAIN       39     88       HYPERVARIABLE STALK REGION.
FT   DOMAIN       89    470       HEAD OF NEURAMINIDASE.
FT   ACT_SITE    273    273       BY SIMILARITY.
FT   ACT_SITE    275    275       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     54     54       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     84     84       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    293    293       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  52146 MW;  30F5F9FE364C1F49 CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        453 ADWSW 457
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RESULT 5
NRAM_IADU3
ID   NRAM_IADU3     STANDARD;      PRT;   470 AA.
AC   Q07599;
DT   01-OCT-1994 (Rel. 30, Created)
DT   01-OCT-1994 (Rel. 30, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuraminidase (EC 3.2.1.18).
GN   NA.
OS   Influenza A virus (strain A/Duck/Ukraine/1/63).
OC   Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC   Influenza A viruses; Influenzavirus A.
OX   NCBI_TaxID=11374;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93212520; PubMed=8460490;
RA   Saito T., Kawaoka Y., Webster R.G.;
RT   "Phylogenetic analysis of the N8 neuraminidase gene of influenza A
RT   viruses.";
RL   Virology 193:868-876(1993).
CC   -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side
CC       chains of the host cell surface proteins and from the viral
CC       envelope. Such a reaction prevents self-aggregation and facilitate
CC       the mobility of the virus to and from the site of infection.
CC   -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-,
CC       alpha-(2->8)-glycosidic linkages of terminal sialic residues in
CC       oligosaccharides, glycoproteins, glycolipids, colominic acid and
CC       synthetic substrates.
CC   -!- SUBUNIT: Homotetramer.
CC   -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped
CC       spike on the surface of the virion.
CC   -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; L06576; AAA16234.1; -.
DR   HSSP; P06820; 2BAT.
DR   InterPro; IPR001860; Glyco_hydro_34.
DR   Pfam; PF00064; neur; 1.
DR   ProDom; PD000431; Glyco_hydro_34; 1.
KW   Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT   TRANSMEM      7     37       ANCHOR (BY SIMILARITY).
FT   DOMAIN       38     88       HYPERVARIABLE STALK REGION.
FT   DOMAIN       89    470       HEAD OF NEURAMINIDASE.
FT   ACT_SITE    273    273       PROBABLE.
FT   ACT_SITE    275    275       PROBABLE.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     54     54       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     84     84       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  51960 MW;  B46D54A03AC84CCE CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        453 ADWSW 457


RESULT 6
NRAM_IAGFN
ID   NRAM_IAGFN     STANDARD;      PRT;   470 AA.
AC   Q07574;
DT   01-FEB-1995 (Rel. 31, Created)
```

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DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuraminidase (EC 3.2.1.18).
GN   NA.
OS   Influenza A virus (strain A/Guinea fowl/New York/4-3587/84).
OC   Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC   Influenza A viruses; Influenzavirus A.
OX   NCBI_TaxID=38963;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93212520; PubMed=8460490;
RA   Saito T., Kawaoka Y., Webster R.G.;
RT   "Phylogenetic analysis of the N8 neuraminidase gene of influenza A
RT   viruses.";
RL   Virology 193:868-876(1993).
CC   -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side
CC       chains of the host cell surface proteins and from the viral
CC       envelope. Such a reaction prevents self-aggregation and facilitate
CC       the mobility of the virus to and from the site of infection.
CC   -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-,
CC       alpha-(2->8)-glycosidic linkages of terminal sialic residues in
CC       oligosaccharides, glycoproteins, glycolipids, colominic acid and
CC       synthetic substrates.
CC   -!- SUBUNIT: Homotetramer.
CC   -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped
CC       spike on the surface of the virion.
CC   -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   use by non-profit institutions as long as its content is in no way
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; L06584; AAA43428.1; -.
DR   HSSP; P06820; 2BAT.
DR   InterPro; IPR001860; Glyco_hydro_34.
DR   Pfam; PF00064; neur; 1.
DR   ProDom; PD000431; Glyco_hydro_34; 1.
KW   Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT   TRANSMEM      7     38       ANCHOR (BY SIMILARITY).
FT   DOMAIN       39     88       HYPERVARIABLE STALK REGION.
FT   DOMAIN       89    470       HEAD OF NEURAMINIDASE.
FT   ACT_SITE    273    273       BY SIMILARITY.
FT   ACT_SITE    275    275       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     54     54       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     84     84       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    293    293       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  52348 MW;  D3BD2AAC0159FE66 CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        453 ADWSW 457


RESULT 7
NRAM_IAHGD
ID   NRAM_IAHGD     STANDARD;      PRT;   470 AA.
AC   Q07577;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuraminidase (EC 3.2.1.18).
GN   NA.
OS   Influenza A virus (strain A/Herring gull/DE/677/88).
OC   Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC   Influenza A viruses; Influenzavirus A.
OX   NCBI_TaxID=38964;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93212520; PubMed=8460490;
RA   Saito T., Kawaoka Y., Webster R.G.;
RT   "Phylogenetic analysis of the N8 neuraminidase gene of influenza A
RT   viruses.";
RL   Virology 193:868-876(1993).
CC   -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side
CC       chains of the host cell surface proteins and from the viral
CC       envelope. Such a reaction prevents self-aggregation and facilitate
CC       the mobility of the virus to and from the site of infection.
CC   -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-,
CC       alpha-(2->8)-glycosidic linkages of terminal sialic residues in
CC       oligosaccharides, glycoproteins, glycolipids, colominic acid and
CC       synthetic substrates.
CC   -!- SUBUNIT: Homotetramer.
CC   -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped
CC       spike on the surface of the virion.
CC   -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; L06585; AAA43368.1; -.
DR   HSSP; P06820; 2BAT.
DR   InterPro; IPR001860; Glyco_hydro_34.
DR   Pfam; PF00064; neur; 1.
DR   ProDom; PD000431; Glyco_hydro_34; 1.
KW   Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT   TRANSMEM      7     38       ANCHOR (BY SIMILARITY).
FT   DOMAIN       39     88       HYPERVARIABLE STALK REGION.
FT   DOMAIN       89    470       HEAD OF NEURAMINIDASE.
FT   ACT_SITE    273    273       BY SIMILARITY.
FT   ACT_SITE    275    275       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     54     54       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     84     84       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    293    293       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  52265 MW;  28AF0B75E80539B7 CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        453 ADWSW 457


RESULT 8
NRAM_IAHJI
ID   NRAM_IAHJI     STANDARD;      PRT;   470 AA.
AC   Q07578;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuraminidase (EC 3.2.1.18).
GN   NA.
OS   Influenza A virus (strain A/Equine/Jillin/1/89).
OC   Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC   Influenza A viruses; Influenzavirus A.
OX   NCBI_TaxID=11401;
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RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93212520; PubMed=8460490;
RA   Saito T., Kawaoka Y., Webster R.G.;
RT   "Phylogenetic analysis of the N8 neuraminidase gene of influenza A
RT   viruses.";
RL   Virology 193:868-876(1993).
CC   -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side
CC       chains of the host cell surface proteins and from the viral
CC       envelope. Such a reaction prevents self-aggregation and facilitate
CC       the mobility of the virus to and from the site of infection.
CC   -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-,
CC       alpha-(2->8)-glycosidic linkages of terminal sialic residues in
CC       oligosaccharides, glycoproteins, glycolipids, colominic acid and
CC       synthetic substrates.
CC   -!- SUBUNIT: Homotetramer.
CC   -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped
CC       spike on the surface of the virion.
CC   -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; L06579; AAA43374.1; -.
DR   HSSP; P06820; 2BAT.
DR   InterPro; IPR001860; Glyco_hydro_34.
DR   Pfam; PF00064; neur; 1.
DR   ProDom; PD000431; Glyco_hydro_34; 1.
KW   Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT   TRANSMEM      7     38       ANCHOR (BY SIMILARITY).
FT   DOMAIN       39     88       HYPERVARIABLE STALK REGION.
FT   DOMAIN       89    470       HEAD OF NEURAMINIDASE.
FT   ACT_SITE    273    273       BY SIMILARITY.
FT   ACT_SITE    275    275       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     54     54       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     84     84       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    293    293       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  52234 MW;  CE50B21050A37668 CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        453 ADWSW 457


RESULT 9
NRAM_IAMAE
ID   NRAM_IAMAE     STANDARD;      PRT;   470 AA.
AC   Q07583;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuraminidase (EC 3.2.1.18).
GN   NA.
OS   Influenza A virus (strain A/Mallard/Edmonton/220/90).
OC   Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC   Influenza A viruses; Influenzavirus A.
OX   NCBI_TaxID=38965;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93212520; PubMed=8460490;
RA   Saito T., Kawaoka Y., Webster R.G.;
RT   "Phylogenetic analysis of the N8 neuraminidase gene of influenza A
RT   viruses.";
RL   Virology 193:868-876(1993).
CC   -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side
CC       chains of the host cell surface proteins and from the viral
CC       envelope. Such a reaction prevents self-aggregation and facilitate
CC       the mobility of the virus to and from the site of infection.
CC   -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-,
CC       alpha-(2->8)-glycosidic linkages of terminal sialic residues in
CC       oligosaccharides, glycoproteins, glycolipids, colominic acid and
CC       synthetic substrates.
CC   -!- SUBUNIT: Homotetramer.
CC   -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped
CC       spike on the surface of the virion.
CC   -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   ---------------------------------------------------------------------
DR   EMBL; L06586; AAA43369.1; -.
DR   HSSP; P06820; 2BAT.
DR   InterPro; IPR001860; Glyco_hydro_34.
DR   Pfam; PF00064; neur; 1.
DR   ProDom; PD000431; Glyco_hydro_34; 1.
KW   Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT   TRANSMEM      7     38       ANCHOR (BY SIMILARITY).
FT   DOMAIN       39     88       HYPERVARIABLE STALK REGION.
FT   DOMAIN       89    470       HEAD OF NEURAMINIDASE.
FT   ACT_SITE    273    273       BY SIMILARITY.
FT   ACT_SITE    275    275       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     54     54       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     84     84       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    293    293       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  52070 MW;  557630C3E11F2765 CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        453 ADWSW 457


RESULT 10
NRAM_IATKL
ID   NRAM_IATKL     STANDARD;      PRT;   470 AA.
AC   Q07585;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Neuraminidase (EC 3.2.1.18).
GN   NA.
OS   Influenza A virus (strain A/Turkey/Minnesota/501/78).
OC   Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC   Influenza A viruses; Influenzavirus A.
OX   NCBI_TaxID=38984;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93212520; PubMed=8460490;
RA   Saito T., Kawaoka Y., Webster R.G.;
RT   "Phylogenetic analysis of the N8 neuraminidase gene of influenza A
RT   viruses.";
RL   Virology 193:868-876(1993).
CC   -!- FUNCTION: Removes the terminal sialic acid from carbohydrate side
```

```
CC       chains of the host cell surface proteins and from the viral
CC       envelope. Such a reaction prevents self-aggregation and facilitate
CC       the mobility of the virus to and from the site of infection.
CC   -!- CATALYTIC ACTIVITY: Hydrolysis of alpha-(2->3)-, alpha-(2->6)-,
CC       alpha-(2->8)-glycosidic linkages of terminal sialic residues in
CC       oligosaccharides, glycoproteins, glycolipids, colominic acid and
CC       synthetic substrates.
CC   -!- SUBUNIT: Homotetramer.
CC   -!- SUBCELLULAR LOCATION: Viral membrane. Forms a mushroom-shaped
CC       spike on the surface of the virion.
CC   -!- SIMILARITY: Belongs to family 34 of glycosyl hydrolases.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; L06588; AAA43410.1; -.
DR   HSSP; P06820; 2BAT.
DR   InterPro; IPR001860; Glyco_hydro_34.
DR   Pfam; PF00064; neur; 1.
DR   ProDom; PD000431; Glyco_hydro_34; 1.
KW   Hydrolase; Glycosidase; Glycoprotein; Transmembrane.
FT   TRANSMEM      7     38       ANCHOR (BY SIMILARITY).
FT   DOMAIN       39     88       HYPERVARIABLE STALK REGION.
FT   DOMAIN       89    470       HEAD OF NEURAMINIDASE.
FT   ACT_SITE    273    273       BY SIMILARITY.
FT   ACT_SITE    275    275       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     54     54       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     84     84       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    293    293       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    398    398       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   470 AA;  52352 MW;  DE573742ABFF1E6B CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 470;
  Best Local Similarity   100.0%;  Pred. No. 11;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        453 ADWSW 457


RESULT 11
MRJ5_APIME
ID   MRJ5_APIME     STANDARD;      PRT;   598 AA.
AC   O97432;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Major royal jelly protein 5 precursor (MRJP-5) (Bee-milk protein).
GN   MRJP5.
OS   Apis mellifera (Honeybee).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Apoidea;
OC   Apidae; Apis.
OX   NCBI_TaxID=7460;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Head;
RX   MEDLINE=99373663; PubMed=10441680;
RA   Albert S., Bhattacharya D., Klaudiny J., Schmitzova J., Simuth J.;
RT   "The family of major royal jelly proteins and its evolution.";
RL   J. Mol. Evol. 49:290-297(1999).
CC   -!- FUNCTION: MAY PLAY AN IMPORTANT ROLE IN HONEYBEE NUTRITION. IT IS
CC       FOUND IN THE ROYAL JELLY WHICH IS THE FOOD OF THE QUEEN HONEY BEE
CC       LARVA. THE ROYAL JELLY DETERMINES THE DEVELOPMENT OF THE YOUNG
CC       LARVAE AND IS RESPONSIBLE FOR THE HIGH REPRODUCTIVE ABILITY OF THE
CC       HONEYBEE QUEEN.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Hypopharyngeal glands of nurse honey bees.
CC   -!- DEVELOPMENTAL STAGE: Produced by the cephalic glandular system of
CC       the nurse honey bee.
CC   -!- SIMILARITY: Belongs to the major royal jelly protein family.
CC   ---------------------------------------------------------------------
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CC   use by non-profit institutions as long as its content is in no way
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF004842; AAD01205.1; -.
DR   InterPro; IPR003534; Royaljelly.
DR   Pfam; PF03022; MRJP; 2.
DR   PRINTS; PR01366; ROYALJELLY.
KW   Signal; Repeat; Glycoprotein.
FT   SIGNAL        1     17       POTENTIAL.
FT   CHAIN        18    598       MAJOR ROYAL JELLY PROTEIN 5.
FT   CARBOHYD    148    148       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    164    164       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    181    181       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    324    324       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   598 AA;  70236 MW;  2C603C77E7ACDF63 CRC64;

  Query Match             83.3%;  Score 5;  DB 1;  Length 598;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db        113 DWSWA 117


RESULT 12
LCCB_LEUME
ID   LCCB_LEUME     STANDARD;      PRT;    31 AA.
AC   P81052;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   15-DEC-1998 (Rel. 37, Last annotation update)
DE   Bacteriocin leucocin B.
OS   Leuconostoc mesenteroides.
OC   Bacteria; Firmicutes; Lactobacillales; Leuconostoc.
OX   NCBI_TaxID=1245;
RN   [1]
RP   SEQUENCE.
RC   STRAIN=TA33a;
RX   MEDLINE=98274743; PubMed=9611809;
RA   Papathanasopoulos M.A., Dykes G.A., Revol-Junelles A.-M., Delfour A.,
RA   von Holy A., Hastings J.W.;
RT   "Sequence and structural relationships of leucocins A-, B- and
RT   C-TA33a from Leuconostoc mesenteroides TA33a.";
RL   Microbiology 144:1343-1348(1998).
CC   -!- FUNCTION: Inhibits a wide spectrum of lactic acid bacteria.
CC   -!- SUBCELLULAR LOCATION: Secreted.
KW   Bacteriocin; Antibiotic.
SQ   SEQUENCE   31 AA;  3466 MW;  7C8DD9C387D34D55 CRC64;

  Query Match             66.7%;  Score 4;  DB 1;  Length 31;
  Best Local Similarity   100.0%;  Pred. No. 23;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 WSWA 6
              ||||
Db          6 WSWA 9


RESULT 13
TXD3_PARLU
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ID   TXD3_PARLU     STANDARD;      PRT;    36 AA.
AC   P83258;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Delta-palutoxin IT3 (Delta-paluIT3).
OS   Paracoelotes luctuosus (Spider).
OC   Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Araneae;
OC   Araneomorphae; Entelegynae; Amaurobiidae; Paracoelotes.
OX   NCBI_TaxID=185217;
RN   [1]
RP   SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RC   TISSUE=Venom;
RX   MEDLINE=20428467; PubMed=10971590;
RA   Corzo G., Escoubas P., Stankiewicz M., Pelhate M., Kristensen C.P.,
RA   Nakajima T.;
RT   "Isolation, synthesis and pharmacological characterization of
RT   delta-palutoxins IT, novel insecticidal toxins from the spider
RT   Paracoelotes luctuosus (Amaurobiidae).";
RL   Eur. J. Biochem. 267:5783-5795(2000).
CC   -!- FUNCTION: Potent activity against S.litura larvae.
CC   -!- FUNCTION: Binds to sodium channels and inhibits the inactivation
CC       of the activated channels. This toxin is active only on insects
CC       (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Expressed by the venom gland.
CC   -!- MASS SPECTROMETRY: MW=3926.2; METHOD=MALDI.
CC   -!- SIMILARITY: Belongs to the mu-agatoxin family.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0019871; F:sodium channel inhibitor activity; IDA.
DR   GO; GO:0015070; F:toxin activity; IDA.
KW   Toxin; Neurotoxin; Ionic channel inhibitor; Sodium channel inhibitor.
FT   DISULFID      3     19       BY SIMILARITY.
FT   DISULFID     10     24       BY SIMILARITY.
FT   DISULFID     18     34       BY SIMILARITY.
FT   DISULFID     26     32       BY SIMILARITY.
SQ   SEQUENCE   36 AA;  3934 MW;  9CDFDAD043A19804 CRC64;

  Query Match             66.7%;  Score 4;  DB 1;  Length 36;
  Best Local Similarity   100.0%;  Pred. No. 26;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db         11 ADWS 14


RESULT 14
TXD1_PARLU
ID   TXD1_PARLU     STANDARD;      PRT;    37 AA.
AC   P83256;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Delta-palutoxin IT1 (Delta-paluIT1).
OS   Paracoelotes luctuosus (Spider).
OC   Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Araneae;
OC   Araneomorphae; Entelegynae; Amaurobiidae; Paracoelotes.
OX   NCBI_TaxID=185217;
RN   [1]
RP   SEQUENCE, SYNTHESIS, FUNCTION, DISULFIDE BONDS, AND MASS SPECTROMETRY.
RC   TISSUE=Venom;
RX   MEDLINE=20428467; PubMed=10971590;
RA   Corzo G., Escoubas P., Stankiewicz M., Pelhate M., Kristensen C.P.,
RA   Nakajima T.;
RT   "Isolation, synthesis and pharmacological characterization of
RT   delta-palutoxins IT, novel insecticidal toxins from the spider
RT   Paracoelotes luctuosus (Amaurobiidae).";
RL   Eur. J. Biochem. 267:5783-5795(2000).
CC   -!- FUNCTION: Potent activity against S.litura larvae.
CC   -!- FUNCTION: Binds to sodium channels and inhibits the inactivation
CC       of the activated channels. This toxin is active only on insects.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Expressed by the venom gland.
CC   -!- MASS SPECTROMETRY: MW=4037.9; METHOD=MALDI.
CC   -!- SIMILARITY: Belongs to the mu-agatoxin family.
DR   PIR; A59401; A59401.
DR   GO; GO:0005576; C:extracellular; NAS.
DR   GO; GO:0019871; F:sodium channel inhibitor activity; IDA.
DR   GO; GO:0015070; F:toxin activity; IDA.
KW   Toxin; Neurotoxin; Ionic channel inhibitor; Amidation;
KW   Sodium channel inhibitor.
FT   DISULFID      2     18
FT   DISULFID      9     23
FT   DISULFID     17     33
FT   DISULFID     25     31
FT   MOD_RES      37     37       AMIDATION.
SQ   SEQUENCE   37 AA;  4046 MW;  E019DABCC25BC11E CRC64;

  Query Match             66.7%;  Score 4;  DB 1;  Length 37;
  Best Local Similarity   100.0%;  Pred. No. 27;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db         10 ADWS 13


RESULT 15
ACYP_MYCTU
ID   ACYP_MYCTU     STANDARD;      PRT;    93 AA.
AC   P56543;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Putative acylphosphatase (EC 3.6.1.7) (Acylphosphate
DE   phosphohydrolase).
GN   ACYP OR RV2922.1C OR MT2991 OR MTCY338.11BC OR MB2947C.
OS   Mycobacterium tuberculosis, and
OS   Mycobacterium bovis.
OC   Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
OC   Corynebacterineae; Mycobacteriaceae; Mycobacterium.
OX   NCBI_TaxID=1773, 1765;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   SPECIES=M.tuberculosis; STRAIN=H37Rv;
RX   MEDLINE=98295987; PubMed=9634230;
RA   Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris D.,
RA   Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F.,
RA   Badcock K., Basham D., Brown D., Chillingworth T., Connor R.,
RA   Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd S.,
RA   Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L.,
RA   Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J.,
RA   Rutter S., Seeger K., Skelton S., Squares S., Squares R.,
RA   Sulston J.E., Taylor K., Whitehead S., Barrell B.G.;
RT   "Deciphering the biology of Mycobacterium tuberculosis from the
RT   complete genome sequence.";
RL   Nature 393:537-544(1998).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   SPECIES=M.tuberculosis; STRAIN=CDC 1551 / Oshkosh;
RX   MEDLINE=22206494; PubMed=12218036;
RA   Fleischmann R.D., Alland D., Eisen J.A., Carpenter L., White O.,
RA   Peterson J., DeBoy R., Dodson R., Gwinn M., Haft D., Hickey E.,
RA   Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva M., Salzberg S.L.,
RA   Delcher A., Utterback T., Weidman J., Khouri H., Gill J., Mikula A.,
RA   Bishai W., Jacobs W.R. Jr., Venter J.C., Fraser C.M.;
RT   "Whole-genome comparison of Mycobacterium tuberculosis clinical and
RT   laboratory strains.";
RL   J. Bacteriol. 184:5479-5490(2002).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   SPECIES=M.bovis; STRAIN=AF2122/97;
RX   MEDLINE=22709107; PubMed=12788972;
RA   Garnier T., Eiglmeier K., Camus J.-C., Medina N., Mansoor H.,
RA   Pryor M., Duthoy S., Grondin S., Lacroix C., Monsempe C., Simon S.,
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RA   Harris B., Atkin R., Doggett J., Mayes R., Keating L., Wheeler P.R.,
RA   Parkhill J., Barrell B.G., Cole S.T., Gordon S.V., Hewinson R.G.;
RT   "The complete genome sequence of Mycobacterium bovis.";
RL   Proc. Natl. Acad. Sci. U.S.A. 100:7877-7882(2003).
RN   [4]
RP   IDENTIFICATION.
RC   SPECIES=M.tuberculosis;
RA   Bairoch A.;
RL   Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
CC   -!- CATALYTIC ACTIVITY: An acyl phosphate + H(2)O = a fatty acid anion
CC       + phosphate.
CC   -!- SIMILARITY: Belongs to the acylphosphatase family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Z74697; -; NOT_ANNOTATED_CDS.
DR   EMBL; AE007121; AAK47318.1; -.
DR   EMBL; BX248344; CAD96634.1; -.
DR   TIGR; MT2991; -.
DR   TubercuList; Rv2922.1c; -.
DR   InterPro; IPR001792; Acylphosphatase.
DR   Pfam; PF00708; Acylphosphatase; 1.
DR   ProDom; PD001884; Acylphosphatase; 1.
DR   PROSITE; PS00150; ACYLPHOSPHATASE_1; 1.
DR   PROSITE; PS00151; ACYLPHOSPHATASE_2; 1.
KW   Hypothetical protein; Hydrolase; Complete proteome.
SQ   SEQUENCE   93 AA;  10206 MW;  63A90ED2D780DDEB CRC64;

  Query Match             66.7%;  Score 4;  DB 1;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 56;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db         78 ADWS 81


Search completed: April 27, 2004, 08:58:56
Job time : 12 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: April 27, 2004, 08:56:03 ; Search time 21 Seconds
(without alignments)
27.483 Million cell updates/sec

Title: US-09-847-940C-6
Perfect score: 6
Sequence: 1 ADWSWA 6

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 283366 seqs, 96191526 residues

Word size : 0

Total number of hits satisfying chosen parameters: 283366

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : PIR_78:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	5	83.3	374	2	B83241	conserved hypothet
2	5	83.3	889	2	E87304	TonB-dependent rec
3	4	66.7	32	2	A24047	gap junction prote
4	4	66.7	37	2	A59401	delta-paluIT1 - Pa
5	4	66.7	57	2	AG2302	hypothetical prote
6	4	66.7	88	2	H95051	hypothetical prote
7	4	66.7	88	2	D97922	hypothetical prote
8	4	66.7	94	2	T10250	lectin homolog 2 -
9	4	66.7	95	2	T36897	probable xylanase
10	4	66.7	97	2	E53374	type IV prepilin p
11	4	66.7	98	2	D53374	type IV prepilin p
12	4	66.7	100	2	H81042	hypothetical prote
13	4	66.7	115	2	T31781	hypothetical prote
14	4	66.7	118	2	E90828	probable terminase
15	4	66.7	118	2	B85686	unknown protein en
16	4	66.7	122	2	S69909	Ig V-D-J region (M
17	4	66.7	129	1	E69973	hypothetical prote
18	4	66.7	129	2	F69902	conserved hypothet
19	4	66.7	132	2	S65785	mel-13a protein -
20	4	66.7	133	2	S70967	bfpG protein - Esc
21	4	66.7	133	2	F84190	hypothetical prote
22	4	66.7	134	2	AG2926	conserved hypothet
23	4	66.7	134	2	H98355	hypothetical prote
24	4	66.7	135	2	B83440	hypothetical prote
25	4	66.7	137	2	G84174	hypothetical prote
26	4	66.7	139	2	S54229	Ig mu heavy chain
27	4	66.7	140	2	A33155	pathogenesis-relat
28	4	66.7	143	2	T16896	hypothetical prote
29	4	66.7	147	2	S30974	gene 29 protein -
30	4	66.7	147	2	C72803	gp29 protein - Myc
31	4	66.7	151	2	A81863	hypothetical prote
32	4	66.7	152	2	AI3271	acetyltransferase
33	4	66.7	153	2	B71131	hypothetical prote
34	4	66.7	161	2	A97671	hypothetical prote
35	4	66.7	163	2	T02054	pathogenesis relat
36	4	66.7	166	2	AE0773	conserved hypothet
37	4	66.7	169	1	A35209	cytochrome-c oxida
38	4	66.7	169	1	S12142	cytochrome-c oxida
39	4	66.7	178	2	F82952	ATP synthase delta
40	4	66.7	180	2	H83256	hypothetical prote
41	4	66.7	183	2	G84323	50S ribosomal prot
42	4	66.7	185	2	T28707	hypothetical prote
43	4	66.7	188	2	F95944	hypothetical prote
44	4	66.7	190	2	AC0619	hypothetical bacte
45	4	66.7	191	2	H69387	conserved hypothet

ALIGNMENTS

RESULT 1
B83241
conserved hypothetical protein PA3230 [imported] - Pseudomonas aeruginosa (strain PAO1)
C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
C;Accession: B83241
R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Br
adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim,
.; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic pathog
A;Reference number: A82950; MUID:20437337; PMID:10984043
A;Accession: B83241
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-374 <STO>
A;Cross-references: GB:AE004746; GB:AE004091; NID:g9949350; PIDN:AAG06618.1; GSPDB:GN001
A;Experimental source: strain PAO1
C;Genetics:
A;Gene: PA3230

Query Match 83.3%; Score 5; DB 2; Length 374;
Best Local Similarity 100.0%; Pred. No. 19;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          2 DWSWA 6
              |||||
Db         81 DWSWA 85
```

RESULT 2
E87304
TonB-dependent receptor [imported] - Caulobacter crescentus
C;Species: Caulobacter crescentus
C;Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 20-Apr-2001
C;Accession: E87304
R;Nierman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.E.; Eisen, J.; Heidelberg, J.
B.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon
n, J.; Ermolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.M.
Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001
A;Title: Complete Genome Sequence of Caulobacter crescentus.
A;Reference number: A87249; MUID:21173698; PMID:11259647
A;Accession: E87304
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-889 <STO>
A;Cross-references: GB:AE005673; NID:g13421615; PIDN:AAK22433.1; GSPDB:GN00148
C;Genetics:
A;Gene: CC0446

Query Match 83.3%; Score 5; DB 2; Length 889;
Best Local Similarity 100.0%; Pred. No. 40;

```
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        618 ADWSW 622


RESULT 3
A24047
gap junction protein, cardiac - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 25-Oct-1987 #sequence_revision 25-Oct-1987 #text_change 16-Jul-1999
C;Accession: A24047
R;Nicholson, B.J.; Gros, D.B.; Kent, S.B.H.; Hood, L.E.; Revel, J.P.
J. Biol. Chem. 260, 6514-6517, 1985
A;Title: The Mr 28,000 gap junction proteins from rat heart and liver are different but
A;Reference number: A92530; MUID:85207650; PMID:2987225
A;Accession: A24047
A;Molecule type: protein
A;Residues: 1-32 <NIC>
C;Superfamily: gap junction protein
C;Keywords: cardiac muscle; heart; transmembrane protein

  Query Match             66.7%;  Score 4;  DB 2;  Length 32;
  Best Local Similarity   100.0%;  Pred. No. 44;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db          1 ADWS 4


RESULT 4
A59401
delta-paluIT1 - Paracoelotes luctuosus
C;Species: Paracoelotes luctuosus
C;Date: 31-Dec-2001 #sequence_revision 31-Dec-2001 #text_change 17-May-2002
C;Accession: A59401
R;Corzo, G.
Eur. J. Biochem. 267, 5783-5795, 2000
A;Title: Isolation, synthesis and pharmacological characterization of delta-palutoxins I
A;Reference number: A59401
A;Accession: A59401
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-37 <COR>
A;Note: insect-specific sodium channel neurotoxin
C;Superfamily: curtatoxin
F;2-18/Disulfide bonds: #status experimental
F;9-23/Disulfide bonds: #status experimental
F;17-33/Disulfide bonds: #status experimental
F;25-31/Disulfide bonds: #status experimental

  Query Match             66.7%;  Score 4;  DB 2;  Length 37;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db         10 ADWS 13


RESULT 5
AG2302
hypothetical protein asl3974 [imported] - Nostoc sp. (strain PCC 7120)
C;Species: Nostoc sp. PCC 7120
A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120
C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Dec-2002
C;Accession: AG2302
R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.; Iriguchi
 Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata, S
DNA Res. 8, 205-213, 2001
A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium Ana
A;Reference number: AB1807; MUID:21595285; PMID:11759840
A;Accession: AG2302
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-57 <KUR>
A;Cross-references: GB:BA000019; PIDN:BAB75673.1; PID:g17133108; GSPDB:GN00179
A;Experimental source: strain PCC 7120
C;Genetics:
A;Gene: asl3974

  Query Match             66.7%;  Score 4;  DB 2;  Length 57;
  Best Local Similarity   100.0%;  Pred. No. 72;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db         41 ADWS 44


RESULT 6
H95051
hypothetical protein SP0448 [imported] - Streptococcus pneumoniae (strain TIGR4)
C;Species: Streptococcus pneumoniae
C;Date: 03-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 03-Aug-2001
C;Accession: H95051
R;Tettelin, H.; Nelson, K.E.; Paulsen, I.T.; Eisen, J.A.; Read, T.D.; Peterson, S.; Heide
on, J.D.; Umayam, L.A.; White, O.; Salzberg, S.L.; Lewis, M.R.; Radune, D.; Holtzapple, H
nson, T.; Hickey, E.K.; Holt, I.E.
Science 293, 498-506, 2001
A;Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrison,
A;Title: Complete Genome Sequence of a virulent isolate of Streptococcus pneumoniae.
A;Reference number: A95000; MUID:21357209; PMID:11463916
A;Accession: H95051
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-88 <KUR>
A;Cross-references: GB:AE005672; PIDN:AAK74609.1; PID:g14971918; GSPDB:GN00164; TIGR:SP4
A;Experimental source: strain TIGR4
C;Genetics:
A;Gene: SP0448

  Query Match             66.7%;  Score 4;  DB 2;  Length 88;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db         18 ADWS 21


RESULT 7
D97922
hypothetical protein spr0404 [imported] - Streptococcus pneumoniae (strain R6)
C;Species: Streptococcus pneumoniae
C;Date: 22-Oct-2001 #sequence_revision 22-Oct-2001 #text_change 22-Oct-2001
C;Accession: D97922
R;Hoskins, J.A.; Alborn Jr., W.; Arnold, J.; Blaszczak, L.; Burgett, S.; DeHoff, B.S.; Es
e, R.; LeBlanc, D.J.; Lee, L.N.; Lefkowitz, E.J.; Lu, J.; Matsushima, P.; McAhren, S.; Mc
y, P.; Sun, P.M.; Winkler, M.E.
J. Bacteriol. 183, 5709-5717, 2001
A;Authors: Yang, Y.; Young-Bellido, M.; Zhao, G.; Zook, C.; Baltz, R.H.; Jaskunas, S.R.;
A;Title: Genome of the Bacterium Streptococcus pneumoniae Strain R6.
A;Reference number: A97872; MUID:21429245; PMID:11544234
A;Accession: D97922
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-88 <KUR>
A;Cross-references: GB:AE007317; PIDN:AAK99208.1; PID:g15457967; GSPDB:GN00174
C;Genetics:
A;Gene: spr0404

  Query Match             66.7%;  Score 4;  DB 2;  Length 88;
  Best Local Similarity   100.0%;  Pred. No. 1e+02;
```

```
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db         18 ADWS 21


RESULT 8
T10250
lectin homolog 2 - cucumber (fragment)
C;Species: Cucumis sativus (cucumber)
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 21-Jul-2000
C;Accession: T10250
R;Toyama, T.; Teramoto, H.; Takeba, G.; Tsuji, H.
Plant Cell Physiol. 36, 1349-1359, 1995
A;Title: Cytokinin induces a rapid decrease in the levels of mRNAs for catalase, 3-hydrc
A;Reference number: Z16946; MUID:96104306; PMID:8564304
A;Accession: T10250
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-94 <TOY>
A;Cross-references: EMBL:D63388; NID:g1199482; PIDN:BAA09704.1; PID:g1199483
A;Experimental source: seedling; cotyledon

  Query Match             66.7%;  Score 4;  DB 2;  Length 94;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 WSWA 6
              ||||
Db         35 WSWA 38


RESULT 9
T36897
probable xylanase - Streptomyces coelicolor (fragment)
C;Species: Streptomyces coelicolor
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Dec-2002
C;Accession: T36897
R;Seeger, K.; Harris, D.; Bentley, S.D.; Parkhill, J.; Barrell, B.G.; Rajandream, M.A.
submitted to the EMBL Data Library, July 1999
A;Reference number: Z21574
A;Accession: T36897
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-95 <SEE>
A;Cross-references: EMBL:AL096743; PIDN:CAB46384.1; GSPDB:GN00070; SCOEDB:SCI7.01c
A;Experimental source: strain A3(2)
C;Genetics:
A;Gene: SCOEDB:SCI7.01c
C;Superfamily: Xylan 1,4-beta-xylosidase (EC 3.2.1.37)

  Query Match             66.7%;  Score 4;  DB 2;  Length 95;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db         18 ADWS 21


RESULT 10
E53374
type IV prepilin peptidase (EC 3.4.99.-) pilD - Neisseria subflava (strain LNP3260) (fra
N;Contains: type IV pilin N-methyltransferase (EC 2.1.1.-)
C;Species: Neisseria subflava
C;Date: 19-Mar-1997 #sequence_revision 19-Dec-1997 #text_change 29-Jan-1999
C;Accession: E53374
R;Dupuy, B.; Pugsley, A.P.
J. Bacteriol. 176, 1323-1331, 1994
A;Title: Type IV prepilin peptidase gene of Neisseria gonorrhoeae MS11: presence of a re
A;Reference number: A53374; MUID:94156836; PMID:7906688
A;Accession: E53374
A;Status: preliminary; nucleic acid sequence not shown; not compared with conceptual trar
A;Molecule type: DNA
A;Residues: 1-97 <DUP>
C;Genetics:
A;Gene: pilD
C;Superfamily: type IV prepilin peptidase
C;Keywords: hydrolase; methyltransferase; S-adenosylmethionine

  Query Match             66.7%;  Score 4;  DB 2;  Length 97;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 WSWA 6
              ||||
Db         19 WSWA 22


RESULT 11
D53374
type IV prepilin peptidase (EC 3.4.99.-) - Neisseria sicca (strain LNP3265) (fragment)
N;Contains: type IV pilin N-methyltransferase (EC 2.1.1.-)
C;Species: Neisseria sicca
C;Date: 23-Mar-1995 #sequence_revision 23-Mar-1995 #text_change 29-Jan-1999
C;Accession: D53374
R;Dupuy, B.; Pugsley, A.P.
J. Bacteriol. 176, 1323-1331, 1994
A;Title: Type IV prepilin peptidase gene of Neisseria gonorrhoeae MS11: presence of a rel
A;Reference number: A53374; MUID:94156836; PMID:7906688
A;Accession: D53374
A;Status: preliminary; nucleic acid sequence not shown; not compared with conceptual trar
A;Molecule type: DNA
A;Residues: 1-98 <DUP>
C;Superfamily: type IV prepilin peptidase
C;Keywords: hydrolase; methyltransferase; S-adenosylmethionine

  Query Match             66.7%;  Score 4;  DB 2;  Length 98;
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  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 WSWA 6
              ||||
Db         20 WSWA 23


RESULT 12
H81042
hypothetical protein NMB1782 [imported] - Neisseria meningitidis (strain MC58 serogroup I
C;Species: Neisseria meningitidis
C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 02-Feb-2001
C;Accession: H81042; G81988
R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, J.A
Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B.A.;
ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, M.
Science 287, 1809-1815, 2000
A;Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; Ver
A;Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MC58.
A;Reference number: A81000; MUID:20175755; PMID:10710307
A;Accession: H81042
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-100 <TET>
A;Cross-references: GB:AE002528; GB:AE002098; NID:g7227034; PIDN:AAF42122.1; PID:g722703
A;Experimental source: serogroup B, strain MC58
R;Parkhill, J.; Achtman, M.; James, K.D.; Bentley, S.D.; Churcher, C.; Klee, S.R.; Morell
; Holroyd, S.; Jagels, K.; Leather, S.; Moule, S.; Mungall, K.; Quail, M.A.; Rajandream,
Nature 404, 502-506, 2000
A;Title: Complete DNA sequence of a serogroup A strain of Neisseria menigitidis Z2491.
A;Reference number: A81775; MUID:20222556; PMID:10761919
A;Accession: G81988
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-100 <PAR>
A;Cross-references: GB:AL162753; GB:AL157959; NID:g7379120; PIDN:CAB83970.1; PID:g737941
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A;Experimental source: serogroup A, strain Z2491
C;Genetics:
A;Gene: NMB1782; NMA0683; NMA0684
C;Superfamily: Neisseria meningitidis hypothetical protein NMB1782

Query Match 66.7%; Score 4; DB 2; Length 100;
Best Local Similarity 100.0%; Pred. No. 1.2e+02;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 DWSW 5
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Db 77 DWSW 80

RESULT 13
T31781
hypothetical protein F13H6.2 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 04-Mar-2000
C;Accession: T31781
R;Jones, K.; Wohldmann, P.
submitted to the EMBL Data Library, July 1997
A;Description: The sequence of C. elegans cosmid F13H6.
A;Reference number: Z21085
A;Accession: T31781
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-115 <JON>
A;Cross-references: EMBL:AF016437; PIDN:AAB65884.1; GSPDB:GN00023; CESP:F13H6.2
A;Experimental source: strain Bristol N2; clone F13H6
C;Genetics:
A;Gene: CESP:F13H6.2
A;Map position: 5
A;Introns: 52/1; 92/3
C;Superfamily: Caenorhabditis elegans hypothetical protein F13H6.2

Query Match 66.7%; Score 4; DB 2; Length 115;
Best Local Similarity 100.0%; Pred. No. 1.3e+02;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWS 4
||||
Db 95 ADWS 98

RESULT 14
E90828
probable terminase small subunit [imported] - Escherichia coli (strain O157:H7, substrai
C;Species: Escherichia coli
C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 18-Jul-2001
C;Accession: E90828
R;Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G.
gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
DNA Res. 8, 11-22, 2001
A;Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and genc
A;Reference number: A99629; MUID:21156231; PMID:11258796
A;Accession: E90828
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-118 <HAY>
A;Cross-references: GB:BA000007; PIDN:BAB35020.1; PID:g13361061; GSPDB:GN00154
A;Experimental source: strain O157:H7, substrain RIMD 0509952
C;Genetics:
A;Gene: ECs1597

Query Match 66.7%; Score 4; DB 2; Length 118;
Best Local Similarity 100.0%; Pred. No. 1.3e+02;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWS 4
||||
Db 35 ADWS 38

RESULT 15
B85686
unknown protein encoded by prophage CP-933C [imported] - Escherichia coli (strain O157:H
C;Species: Escherichia coli
C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 14-Sep-2001
C;Accession: B85686
R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Mayhew
iller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamousis, K.; Apodaca,
Nature 409, 529-533, 2001
A;Title: Genome sequence of enterohemorrhagic Escherichia coli O157:H7.
A;Reference number: A85480; MUID:21074935; PMID:11206551
A;Accession: B85686
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-118 <STO>
A;Cross-references: GB:AE005174; NID:g12514775; PIDN:AAG55950.1; GSPDB:GN00145; UWGP:Z18
A;Experimental source: strain O157:H7, substrain EDL933
C;Genetics:
A;Gene: Z1853

Query Match 66.7%; Score 4; DB 2; Length 118;
Best Local Similarity 100.0%; Pred. No. 1.3e+02;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWS 4
||||
Db 35 ADWS 38

Search completed: April 27, 2004, 08:59:31
Job time : 23 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: April 27, 2004, 08:58:38 ; Search time 42 Seconds
(without alignments)
39.496 Million cell updates/sec

Title: US-09-847-940C-6
Perfect score: 6
Sequence: 1 ADWSWA 6

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1133595 seqs, 276475211 residues

Word size : 0

Total number of hits satisfying chosen parameters: 1133595

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

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18: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	6	100.0	6	10	US-09-847-946A-41	Sequence 41, Appl
2	6	100.0	6	10	US-09-847-946A-73	Sequence 73, Appl
3	6	100.0	7	10	US-09-847-946A-77	Sequence 77, Appl
4	6	100.0	8	10	US-09-847-946A-70	Sequence 70, Appl
5	6	100.0	8	10	US-09-847-946A-78	Sequence 78, Appl
6	6	100.0	9	10	US-09-847-946A-69	Sequence 69, Appl
7	6	100.0	9	10	US-09-847-946A-72	Sequence 72, Appl
8	6	100.0	9	10	US-09-847-946A-75	Sequence 75, Appl
9	6	100.0	9	10	US-09-847-946A-76	Sequence 76, Appl
10	6	100.0	10	10	US-09-847-946A-71	Sequence 71, Appl
11	6	100.0	10	10	US-09-847-946A-74	Sequence 74, Appl
12	6	100.0	11	10	US-09-847-946A-68	Sequence 68, Appl
13	5	83.3	6	9	US-09-847-940B-4	Sequence 4, Appli
14	5	83.3	6	9	US-09-847-940B-5	Sequence 5, Appli
15	5	83.3	6	10	US-09-847-946A-4	Sequence 4, Appli
16	5	83.3	6	10	US-09-847-946A-5	Sequence 5, Appli
17	5	83.3	6	10	US-09-847-946A-39	Sequence 39, Appl
18	5	83.3	6	10	US-09-847-946A-40	Sequence 40, Appl
19	5	83.3	6	10	US-09-847-946A-51	Sequence 51, Appl
20	5	83.3	6	10	US-09-847-946A-62	Sequence 62, Appl
21	5	83.3	7	10	US-09-847-946A-55	Sequence 55, Appl
22	5	83.3	7	10	US-09-847-946A-66	Sequence 66, Appl
23	5	83.3	8	10	US-09-847-946A-48	Sequence 48, Appl
24	5	83.3	8	10	US-09-847-946A-56	Sequence 56, Appl
25	5	83.3	8	10	US-09-847-946A-59	Sequence 59, Appl
26	5	83.3	8	10	US-09-847-946A-67	Sequence 67, Appl
27	5	83.3	9	10	US-09-847-946A-47	Sequence 47, Appl
28	5	83.3	9	10	US-09-847-946A-50	Sequence 50, Appl
29	5	83.3	9	10	US-09-847-946A-53	Sequence 53, Appl
30	5	83.3	9	10	US-09-847-946A-54	Sequence 54, Appl
31	5	83.3	9	10	US-09-847-946A-58	Sequence 58, Appl
32	5	83.3	9	10	US-09-847-946A-61	Sequence 61, Appl
33	5	83.3	9	10	US-09-847-946A-64	Sequence 64, Appl
34	5	83.3	9	10	US-09-847-946A-65	Sequence 65, Appl
35	5	83.3	10	10	US-09-847-946A-49	Sequence 49, Appl
36	5	83.3	10	10	US-09-847-946A-52	Sequence 52, Appl
37	5	83.3	10	10	US-09-847-946A-57	Sequence 57, Appl
38	5	83.3	10	10	US-09-847-946A-60	Sequence 60, Appl
39	5	83.3	10	10	US-09-847-946A-63	Sequence 63, Appl
40	5	83.3	11	10	US-09-847-946A-46	Sequence 46, Appl
41	5	83.3	147	12	US-10-424-599-199086	Sequence 199086,
42	5	83.3	174	14	US-10-219-220-163	Sequence 163, App
43	5	83.3	225	14	US-10-219-220-162	Sequence 162, App
44	5	83.3	236	12	US-10-441-625-17	Sequence 17, Appl
45	5	83.3	236	14	US-10-441-626-17	Sequence 17, Appl

ALIGNMENTS

RESULT 1
US-09-847-946A-41
; Sequence 41, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
; APPLICANT: May, Michael J
; APPLICANT: Ghosh, Sankar
; APPLICANT: Findeis, Mark A
; APPLICANT: Phillips, Kathryn
; APPLICANT: Hannig, Gerhard
; TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
; FILE REFERENCE: PPI-119
; CURRENT APPLICATION NUMBER: US/09/847,946A
; CURRENT FILING DATE: 2001-05-02
; PRIOR APPLICATION NUMBER: 60/201,261
; PRIOR FILING DATE: 2000-05-02
; PRIOR APPLICATION NUMBER: 09/643,260
; PRIOR FILING DATE: 2000-08-22
; NUMBER OF SEQ ID NOS: 160
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 41
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
; OTHER INFORMATION: sequence
US-09-847-946A-41

Query Match 100.0%; Score 6; DB 10; Length 6;
Best Local Similarity 100.0%; Pred. No. 1e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSWA 6
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Db 1 ADWSWA 6

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RESULT 2
US-09-847-946A-73
; Sequence 73, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 73
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-73

  Query Match             100.0%;  Score 6;  DB 10;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 1e+06;
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Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 3
US-09-847-946A-77
; Sequence 77, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 77
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-77

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Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 4
US-09-847-946A-70
; Sequence 70, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 70
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-70

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  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          3 ADWSWA 8


RESULT 5
US-09-847-946A-78
; Sequence 78, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 78
;   LENGTH: 8
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-78

  Query Match             100.0%;  Score 6;  DB 10;  Length 8;
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  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 6
US-09-847-946A-69
; Sequence 69, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 69
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-69

  Query Match             100.0%;  Score 6;  DB 10;  Length 9;
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  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 7
US-09-847-946A-72
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;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
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; SEQ ID NO 72
;   LENGTH: 9
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;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-72

  Query Match             100.0%;  Score 6;  DB 10;  Length 9;
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Qy          1 ADWSWA 6
              ||||||
Db          1 ADWSWA 6


RESULT 8
US-09-847-946A-75
; Sequence 75, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 75
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-75

  Query Match             100.0%;  Score 6;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 1e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          3 ADWSWA 8


RESULT 9
US-09-847-946A-76
; Sequence 76, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 9
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
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;   OTHER INFORMATION: sequence
US-09-847-946A-76

  Query Match             100.0%;  Score 6;  DB 10;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 1e+06;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          2 ADWSWA 7


RESULT 10
US-09-847-946A-71
; Sequence 71, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 71
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-71

  Query Match             100.0%;  Score 6;  DB 10;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.27;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          2 ADWSWA 7


RESULT 11
US-09-847-946A-74
; Sequence 74, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 74
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-74

  Query Match             100.0%;  Score 6;  DB 10;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.27;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          3 ADWSWA 8


RESULT 12
US-09-847-946A-68
; Sequence 68, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J
;  APPLICANT:  Ghosh, Sankar
;  APPLICANT:  Findeis, Mark A
;  APPLICANT:  Phillips, Kathryn
;  APPLICANT:  Hannig, Gerhard
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-119
;  CURRENT APPLICATION NUMBER: US/09/847,946A
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 60/201,261
;  PRIOR FILING DATE: 2000-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 160
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 68
;   LENGTH: 11
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:NEMO binding
;   OTHER INFORMATION: sequence
US-09-847-946A-68

  Query Match             100.0%;  Score 6;  DB 10;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 0.29;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSWA 6
              ||||||
Db          3 ADWSWA 8


RESULT 13
US-09-847-940B-4
; Sequence 4, Application US/09847940B
; Patent No. US20020156000A1
; GENERAL INFORMATION:
;  APPLICANT: May, Michael J.
;  APPLICANT:  Ghosh, Sankar
;  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
;  FILE REFERENCE: PPI-117CP
;  CURRENT APPLICATION NUMBER: US/09/847,940B
;  CURRENT FILING DATE:  2001-05-02
;  PRIOR APPLICATION NUMBER: 09/643,260
;  PRIOR FILING DATE: 2000-08-22
;  NUMBER OF SEQ ID NOS: 27
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
;   LENGTH: 6
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
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; OTHER INFORMATION: Description of Artificial Sequence:NBD mutants
US-09-847-940B-4

Query Match 83.3%; Score 5; DB 9; Length 6;
Best Local Similarity 100.0%; Pred. No. 1e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSW 5
||||||
Db 1 ADWSW 5

RESULT 14
US-09-847-940B-5
; Sequence 5, Application US/09847940B
; Patent No. US20020156000A1
; GENERAL INFORMATION:
; APPLICANT: May, Michael J.
; APPLICANT: Ghosh, Sankar
; TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
; FILE REFERENCE: PPI-117CP
; CURRENT APPLICATION NUMBER: US/09/847,940B
; CURRENT FILING DATE: 2001-05-02
; PRIOR APPLICATION NUMBER: 09/643,260
; PRIOR FILING DATE: 2000-08-22
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:NBD mutants
US-09-847-940B-5

Query Match 83.3%; Score 5; DB 9; Length 6;
Best Local Similarity 100.0%; Pred. No. 1e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 DWSWA 6
||||||
Db 2 DWSWA 6

RESULT 15
US-09-847-946A-4
; Sequence 4, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
; APPLICANT: May, Michael J
; APPLICANT: Ghosh, Sankar
; APPLICANT: Findeis, Mark A
; APPLICANT: Phillips, Kathryn
; APPLICANT: Hannig, Gerhard
; TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
; FILE REFERENCE: PPI-119
; CURRENT APPLICATION NUMBER: US/09/847,946A
; CURRENT FILING DATE: 2001-05-02
; PRIOR APPLICATION NUMBER: 60/201,261
; PRIOR FILING DATE: 2000-05-02
; PRIOR APPLICATION NUMBER: 09/643,260
; PRIOR FILING DATE: 2000-08-22
; NUMBER OF SEQ ID NOS: 160
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:NBD peptide
US-09-847-946A-4

Query Match 83.3%; Score 5; DB 10; Length 6;
Best Local Similarity 100.0%; Pred. No. 1e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSW 5
||||||
Db 1 ADWSW 5

Search completed: April 27, 2004, 09:04:07
Job time : 42 secs

OM protein - protein search, using sw model

Run on: April 27, 2004, 08:55:33 ; Search time 22 Seconds
(without alignments)
14.080 Million cell updates/sec

Title: US-09-847-940C-6
Perfect score: 6
Sequence: 1 ADWSWA 6

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 389414 seqs, 51625971 residues

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Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	5	83.3	68	4	US-09-252-991A-18367	Sequence 18367, A
2	5	83.3	142	4	US-09-252-991A-31533	Sequence 31533, A
3	5	83.3	174	4	US-09-325-932A-163	Sequence 163, App
4	5	83.3	225	4	US-09-325-932A-162	Sequence 162, App
5	5	83.3	236	4	US-09-632-570-17	Sequence 17, Appl
6	5	83.3	236	4	US-09-632-575-47	Sequence 47, Appl
7	5	83.3	242	4	US-09-345-236B-3	Sequence 3, Appli
8	5	83.3	378	4	US-09-325-932A-158	Sequence 158, App
9	5	83.3	445	4	US-09-252-991A-22368	Sequence 22368, A
10	5	83.3	462	4	US-09-252-991A-21704	Sequence 21704, A
11	4	66.7	5	6	5217869-75	Patent No. 5217869
12	4	66.7	8	1	US-08-435-925C-9	Sequence 9, Appli
13	4	66.7	9	1	US-08-435-925C-10	Sequence 10, Appl
14	4	66.7	21	1	US-08-190-788A-246	Sequence 246, App
15	4	66.7	21	1	US-08-383-474B-249	Sequence 249, App
16	4	66.7	21	1	US-08-465-391A-246	Sequence 246, App
17	4	66.7	21	2	US-08-464-538B-246	Sequence 246, App
18	4	66.7	21	2	US-08-463-076E-303	Sequence 303, App
19	4	66.7	21	4	US-09-428-082B-866	Sequence 866, App
20	4	66.7	44	3	US-08-905-223-274	Sequence 274, App
21	4	66.7	74	1	US-08-379-538-2	Sequence 2, Appli
22	4	66.7	78	3	US-09-177-249-184	Sequence 184, App
23	4	66.7	79	4	US-09-252-991A-27207	Sequence 27207, A
24	4	66.7	80	4	US-09-621-976-4160	Sequence 4160, Ap
25	4	66.7	84	3	US-09-251-372-4	Sequence 4, Appli
26	4	66.7	84	4	US-09-811-241-4	Sequence 4, Appli
27	4	66.7	84	4	US-09-252-991A-19040	Sequence 19040, A
28	4	66.7	95	4	US-09-252-991A-31932	Sequence 31932, A
29	4	66.7	100	1	US-08-241-853-28	Sequence 28, Appl
30	4	66.7	100	1	US-08-241-853-29	Sequence 29, Appl
31	4	66.7	100	2	US-08-850-917-28	Sequence 28, Appl
32	4	66.7	100	2	US-08-850-917-29	Sequence 29, Appl
33	4	66.7	106	2	US-08-585-585A-4	Sequence 4, Appli
34	4	66.7	106	2	US-08-249-037C-4	Sequence 4, Appli
35	4	66.7	106	2	US-08-788-622B-4	Sequence 4, Appli
36	4	66.7	106	3	US-08-788-621B-4	Sequence 4, Appli
37	4	66.7	109	1	US-08-477-270-20	Sequence 20, Appl
38	4	66.7	117	4	US-09-149-476-360	Sequence 360, App
39	4	66.7	121	4	US-09-673-395A-204	Sequence 204, App
40	4	66.7	125	4	US-09-543-681A-7177	Sequence 7177, Ap
41	4	66.7	138	4	US-09-252-991A-20154	Sequence 20154, A
42	4	66.7	163	4	US-09-257-583-13	Sequence 13, Appl
43	4	66.7	164	4	US-09-252-991A-23817	Sequence 23817, A
44	4	66.7	170	4	US-09-199-637A-339	Sequence 339, App
45	4	66.7	172	4	US-09-252-991A-23876	Sequence 23876, A

ALIGNMENTS

RESULT 1
US-09-252-991A-18367
; Sequence 18367, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICANT: Marc J. Rubenfield et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 107196.136
; CURRENT APPLICATION NUMBER: US/09/252,991A
; CURRENT FILING DATE: 1999-02-18
; PRIOR APPLICATION NUMBER: US 60/074,788
; PRIOR FILING DATE: 1998-02-18
; PRIOR APPLICATION NUMBER: US 60/094,190
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 18367
; LENGTH: 68
; TYPE: PRT
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-18367

Query Match 83.3%; Score 5; DB 4; Length 68;
Best Local Similarity 100.0%; Pred. No. 1.2;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          2 DWSWA 6
              |||||
Db          2 DWSWA 6
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RESULT 2
US-09-252-991A-31533
; Sequence 31533, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICANT: Marc J. Rubenfield et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 107196.136
; CURRENT APPLICATION NUMBER: US/09/252,991A
; CURRENT FILING DATE: 1999-02-18
; PRIOR APPLICATION NUMBER: US 60/074,788
; PRIOR FILING DATE: 1998-02-18
; PRIOR APPLICATION NUMBER: US 60/094,190
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 31533
; LENGTH: 142
; TYPE: PRT

; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-31533

  Query Match 83.3%; Score 5; DB 4; Length 142;
  Best Local Similarity 100.0%; Pred. No. 2.3;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSW 5
      |||||
Db 94 ADWSW 98

RESULT 3
US-09-325-932A-163
; Sequence 163, Application US/09325932A
; Patent No. 6451604
; GENERAL INFORMATION:
; APPLICANT: Flinn, Barry
; APPLICANT: Lasham, Annette
; TITLE OF INVENTION: Compositions affecting programmed cell
; TITLE OF INVENTION: death and their use in the modification of forestry plant develo
; FILE REFERENCE: 1022
; CURRENT APPLICATION NUMBER: US/09/325,932A
; CURRENT FILING DATE: 1999-06-04
; NUMBER OF SEQ ID NOS: 206
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 163
; LENGTH: 174
; TYPE: PRT
; ORGANISM: Eucalyptus grandis
US-09-325-932A-163

  Query Match 83.3%; Score 5; DB 4; Length 174;
  Best Local Similarity 100.0%; Pred. No. 2.7;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSW 5
      |||||
Db 109 ADWSW 113

RESULT 4
US-09-325-932A-162
; Sequence 162, Application US/09325932A
; Patent No. 6451604
; GENERAL INFORMATION:
; APPLICANT: Flinn, Barry
; APPLICANT: Lasham, Annette
; TITLE OF INVENTION: Compositions affecting programmed cell
; TITLE OF INVENTION: death and their use in the modification of forestry plant develo
; FILE REFERENCE: 1022
; CURRENT APPLICATION NUMBER: US/09/325,932A
; CURRENT FILING DATE: 1999-06-04
; NUMBER OF SEQ ID NOS: 206
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 162
; LENGTH: 225
; TYPE: PRT
; ORGANISM: Eucalyptus grandis
US-09-325-932A-162

  Query Match 83.3%; Score 5; DB 4; Length 225;
  Best Local Similarity 100.0%; Pred. No. 3.4;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSW 5
      |||||
Db 100 ADWSW 104

RESULT 5
US-09-632-570-17
; Sequence 17, Application US/09632570
; Patent No. 6623949
; GENERAL INFORMATION:
; APPLICANT: Gualfetti, Peter
; APPLICANT: Mitchinson, Colin
; APPLICANT: Phillips, Jay Ian
; TITLE OF INVENTION: No. 6623949el Variant EGIII-Like Cellulase
; TITLE OF INVENTION: Compositions
; FILE REFERENCE: GC631
; CURRENT APPLICATION NUMBER: US/09/632,570
; CURRENT FILING DATE: 2000-08-04
; NUMBER OF SEQ ID NOS: 64
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 17
; LENGTH: 236
; TYPE: PRT
; ORGANISM: Gliocladium roseum (3)
US-09-632-570-17

  Query Match 83.3%; Score 5; DB 4; Length 236;
  Best Local Similarity 100.0%; Pred. No. 3.5;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSW 5
      |||||
Db 63 ADWSW 67

RESULT 6
US-09-632-575-47
; Sequence 47, Application US/09632575
; Patent No. 6635465
; GENERAL INFORMATION:
; APPLICANT: Gualfetti, Peter
; APPLICANT: Mitchinson, Colin
; APPLICANT: Ropp, Traci M.
; TITLE OF INVENTION: Mutant EGIII Cellulase, DNA Encoding
; TITLE OF INVENTION: Such EGIII Compositions and Methods for Obtaining Same
; FILE REFERENCE: GC629
; CURRENT APPLICATION NUMBER: US/09/632,575
; CURRENT FILING DATE: 2000-08-04
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 47
; LENGTH: 236
; TYPE: PRT
; ORGANISM: Gliocladium roseum (3)
US-09-632-575-47

  Query Match 83.3%; Score 5; DB 4; Length 236;
  Best Local Similarity 100.0%; Pred. No. 3.5;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ADWSW 5
      |||||
Db 63 ADWSW 67

RESULT 7
US-09-345-236B-3
; Sequence 3, Application US/09345236B
; Patent No. 6521454
; GENERAL INFORMATION:
; APPLICANT: Becnel, James J.
; APPLICANT: Tukuo, Fukuda
; APPLICANT: Moser, Bettina
; APPLICANT: Cockburn, Andrew
; APPLICANT: White, Susan E.
; APPLICANT: Undeen, Albert H.
; TITLE OF INVENTION: No. 6521454el Baculoviruses, Insecticidal
; TITLE OF INVENTION: Compositions, and Methods for Control of Invertebrates
; FILE REFERENCE: 21042.0004
; CURRENT APPLICATION NUMBER: US/09/345,236B
; CURRENT FILING DATE: 1999-06-30

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;  NUMBER OF SEQ ID NOS: 148
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 3
;   LENGTH: 242
;   TYPE: PRT
;   ORGANISM: mosquito baculovirus
US-09-345-236B-3

  Query Match             83.3%;  Score 5;  DB 4;  Length 242;
  Best Local Similarity   100.0%;  Pred. No. 3.6;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db         80 DWSWA 84


RESULT 8
US-09-325-932A-158
; Sequence 158, Application US/09325932A
; Patent No. 6451604
; GENERAL INFORMATION:
;  APPLICANT:  Flinn, Barry
;  APPLICANT:  Lasham, Annette
;  TITLE OF INVENTION:  Compositions affecting programmed cell
;  TITLE OF INVENTION:  death and their use in the modification of forestry plant develo
;  FILE REFERENCE:  1022
;  CURRENT APPLICATION NUMBER: US/09/325,932A
;  CURRENT FILING DATE:  1999-06-04
;  NUMBER OF SEQ ID NOS:  206
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 158
;   LENGTH: 378
;   TYPE: PRT
;   ORGANISM: Eucalyptus grandis
US-09-325-932A-158

  Query Match             83.3%;  Score 5;  DB 4;  Length 378;
  Best Local Similarity   100.0%;  Pred. No. 5.4;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWSW 5
              |||||
Db        128 ADWSW 132


RESULT 9
US-09-252-991A-22368
; Sequence 22368, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
;  APPLICANT:  Marc J. Rubenfield et al.
;  TITLE OF INVENTION:  NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
;  TITLE OF INVENTION:  AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
;  FILE REFERENCE:  107196.136
;  CURRENT APPLICATION NUMBER: US/09/252,991A
;  CURRENT FILING DATE:  1999-02-18
;  PRIOR APPLICATION NUMBER:  US 60/074,788
;  PRIOR FILING DATE:  1998-02-18
;  PRIOR APPLICATION NUMBER:  US 60/094,190
;  PRIOR FILING DATE:  1998-07-27
;  NUMBER OF SEQ ID NOS:  33142
; SEQ ID NO 22368
;   LENGTH: 445
;   TYPE: PRT
;   ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-22368

  Query Match             83.3%;  Score 5;  DB 4;  Length 445;
  Best Local Similarity   100.0%;  Pred. No. 6.2;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db        304 DWSWA 308


RESULT 10
US-09-252-991A-21704
; Sequence 21704, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
;  APPLICANT:  Marc J. Rubenfield et al.
;  TITLE OF INVENTION:  NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
;  TITLE OF INVENTION:  AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
;  FILE REFERENCE:  107196.136
;  CURRENT APPLICATION NUMBER: US/09/252,991A
;  CURRENT FILING DATE:  1999-02-18
;  PRIOR APPLICATION NUMBER:  US 60/074,788
;  PRIOR FILING DATE:  1998-02-18
;  PRIOR APPLICATION NUMBER:  US 60/094,190
;  PRIOR FILING DATE:  1998-07-27
;  NUMBER OF SEQ ID NOS:  33142
; SEQ ID NO 21704
;   LENGTH: 462
;   TYPE: PRT
;   ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-21704

  Query Match             83.3%;  Score 5;  DB 4;  Length 462;
  Best Local Similarity   100.0%;  Pred. No. 6.4;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSWA 6
              |||||
Db        169 DWSWA 173


RESULT 11
5217869-75
;Patent No. 5217869
;    APPLICANT: KAUVAR, LAWRENCE M.
;    TITLE OF INVENTION: METHOD TO PRODUCE IMMUNODIAGNOSTIC
;REAGENTS
;    NUMBER OF SEQUENCES: 121
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/255,906
;      FILING DATE: 11-OCT-1988
;SEQ ID NO:75:
;      LENGTH: 5
5217869-75

  Query Match             66.7%;  Score 4;  DB 6;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 3e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 DWSW 5
              ||||
Db          1 DWSW 4


RESULT 12
US-08-435-925C-9
; Sequence 9, Application US/08435925C
; Patent No. 5646025
;  GENERAL INFORMATION:
;    APPLICANT:  Moyer, Donna
;    TITLE OF INVENTION:  SCYTALIDUM CATALASE GENE
;    NUMBER OF SEQUENCES:  18
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 5646025o No. 5646025disk of No. 5646025th America, Inc.
;      STREET:  405 Lexington Avenue, 64th Floor
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10174-6401
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;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/435,925C
;       FILING DATE:  05-MAY-1995
;       CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;       NAME:  Lambiris, Elias J.
;       REGISTRATION NUMBER:  33,728
;       REFERENCE/DOCKET NUMBER:  4429.000-US
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  212-867-0123
;       TELEFAX:  212-878-9655
;   INFORMATION FOR SEQ ID NO:  9:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  8 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
US-08-435-925C-9

  Query Match             66.7%;  Score 4;  DB 1;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 3e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db          1 ADWS 4


RESULT 13
US-08-435-925C-10
; Sequence 10, Application US/08435925C
; Patent No. 5646025
;  GENERAL INFORMATION:
;    APPLICANT:  Moyer, Donna
;    TITLE OF INVENTION:  SCYTALIDUM CATALASE GENE
;    NUMBER OF SEQUENCES:  18
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 5646025o No. 5646025disk of No. 5646025th America, Inc.
;      STREET:  405 Lexington Avenue, 64th Floor
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10174-6401
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/435,925C
;      FILING DATE:  05-MAY-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Lambiris, Elias J.
;      REGISTRATION NUMBER:  33,728
;      REFERENCE/DOCKET NUMBER:  4429.000-US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  212-867-0123
;      TELEFAX:  212-878-9655
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  9 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-435-925C-10

  Query Match             66.7%;  Score 4;  DB 1;  Length 9;
  Best Local Similarity   100.0%;  Pred. No. 3e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db          1 ADWS 4


RESULT 14
US-08-190-788A-246
; Sequence 246, Application US/08190788A
; Patent No. 5608035
;  GENERAL INFORMATION:
;    APPLICANT:  Yanofsky, Stephen D.
;    APPLICANT:  Barrett, Ronald W.
;    APPLICANT:  Baldwin, David N.
;    APPLICANT:  Jacobs, Jeff W.
;    TITLE OF INVENTION:  Peptides and Compounds That Bind to the
;    TITLE OF INVENTION:  IL-1 Receptor
;    NUMBER OF SEQUENCES:  312
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Affymax Technologies N.V.
;      STREET:  4001 Miranda Avenue
;      CITY:  Palo Alto
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/190,788A
;      FILING DATE:  02-FEB-1994
;      CLASSIFICATION:  530
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/847,567
;      FILING DATE:  05-MAR-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Stevens, Lauren L.
;      REGISTRATION NUMBER:  36,691
;      REFERENCE/DOCKET NUMBER:  1019.1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-496-2300
;      TELEFAX:  415-424-0832
;  INFORMATION FOR SEQ ID NO:  246:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  21 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-190-788A-246

  Query Match             66.7%;  Score 4;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 12;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db          7 ADWS 10


RESULT 15
US-08-383-474B-249
; Sequence 249, Application US/08383474B
; Patent No. 5767234
;  GENERAL INFORMATION:
;    APPLICANT:  Yanofsky, Stephen D.
;    APPLICANT:  Barrett, Ronald W.
;    APPLICANT:  Baldwin, David N.
;    APPLICANT:  Jacobs, Jeff W.
```

```
;    TITLE OF INVENTION:  Peptides and Compounds That Bind to
;    TITLE OF INVENTION:  the IL-1 Receptor
;    NUMBER OF SEQUENCES:  314
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Townsend & Townsend & Crew LLP
;      STREET:  Two Embarcadero Center, 8th Floor
;      CITY:  San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94111-3834
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/383,474B
;      FILING DATE:  01-FEB-1995
;      CLASSIFICATION:  530
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/190,788
;      FILING DATE:  02-FEB-1994
;      CLASSIFICATION:  530
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Stevens, Lauren L.
;      REGISTRATION NUMBER:  36,691
;      REFERENCE/DOCKET NUMBER:  1019.3
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-496-2300
;      TELEFAX:  415-424-0832
;  INFORMATION FOR SEQ ID NO:  249:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  21 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-383-474B-249

  Query Match             66.7%;  Score 4;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 12;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ADWS 4
              ||||
Db          7 ADWS 10


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